THE

BRITISH CRITIC,

For FEBRUARY, 1804.

Servare modum, finemque teere,
Naturamque ſequi, patriæque impendere vitam. LUCAN.

Direct your courſe by firm conſiſtent laws,
And live devoted to your country's cauſe.

ART. I. *Philoſophical Tranſactions of the Royal Society of London, for the Year* 1802. *Part II.** 4to. 313 pp. G. and W. Nicol.

ELEVEN Papers form the contents of the preſent ſecond Part of the Philoſophical Tranſactions, the ſubjects of which will be briefly ſtated in the following pages.

VIII. *Obſervations on the Two lately diſcovered Celeſtial Bodies.* By William Herſchel, LL. D. &c.

The firſt ſet of the obſervations that are related in this paper were made for the purpoſe of meaſuring the apparent diameters of the two newly-diſcovered planets, Ceres and Pallas. This object Dr. H. endeavoured to accompliſh, by means of

* In our preceding volume, at page 184, will be found the firſt Part of the Tranſactions for 1802. In the ſame volume, at page 489, is the account of the firſt Part of the Tranſactions for 1803, which was ſent to preſs by miſtake inſtead of this.

what he calls the lucid diſk micrometer. It conſiſts of a c cular ſurface, illumined by means of a lamp, which m be ſet at any required diſtance from the teleſcope. The o ſerver then, looking with one eye at the planet through t teleſcope, throws the apparent image of it either upon or n the illumined diſk; which, being placed by an aſſiſtant nea to or farther from the teleſcope, may be cauſed to appear equal ſize with the image of the planet. Laſtly, by meaſur the diameter of the diſk and its diſtance from the obſerver, alſo by knowing the amplifying power of the teleſcope, t real ſize of the planet may thereby be calculated. In this m ner, Dr. H. meaſured the diameters of the above-mentio planets, and found that the apparent diameter of Ceres is o 0″,38, and that the diameter of Pallas is 0″,13, or 0″,17.

From thoſe apparent diameters, and from the knowledge the other elements of their orbits, this author calculated th real diameters in miles; and the reſult of his calculation that the real diameter of Ceres is 161,6 miles, and the real ameter of Pallas is not more than $110\frac{1}{3}$ miles.

The next ſet of obſervations was made with a view of diſc vering any ſatellites which might revolve round thoſe plan no ſuch ſatellite was, however, diſcovered; and, indeed, t author obſerves, " that the little quantity of matter thoſe p nets contain would hardly be adequate to the retention o ſecondary body."

With reſpect to the colour, Dr. H. obſerves, " that t colour of Ceres is ruddy, but not very deep. Ceres is m more ruddy than Pallas. Pallas is of a duſky whitiſh c lour."

He deſcribes the appearances of thoſe two planets in t following terms.

" Ceres, with a magnifying power of $516\frac{1}{2}$, ſhows an ill-de planetary diſk, hardly to be diſtinguiſhed from the ſurrounding h neſs. Ceres has a viſible diſk. In viewing Pallas, I cannot, with utmoſt attention, and under the moſt favourable preſent circumſtan perceive any ſharp termination which might denote a diſk; it is ther what I would call a nucleus. April 28. In the finder, Palla leſs than Ceres. It is alſo rather leſs than when I firſt ſaw it."

After the ſtatement of thoſe obſervations, Dr. H. propo the following queſtion, namely, " What are thoſe new ſt are they planets, or are they comets? and, after a rather e tenſive diſcuſſion, he makes the following concluſion.

" With this intention, therefore, I have endeavoured to find ou leading feature in the character of theſe new ſtars; and, as pla are diſtinguiſhed from the fixed ſtars by their viſible change of ſ

tion in the zodiac, and comets by their remarkable comas; ſo the quality, in which theſe objects differ conſiderably from the two former ſpecies, is, that they reſemble ſmall ſtars ſo much, as hardly to be diſtinguiſhed from them, even by very good teleſcopes. It is owing to this very circumſtance that they have been ſo long concealed from our view. From this, their aſteroidical appearance, if I may uſe that expreſſion, therefore, I ſhall take my name, and call them *aſteroids*; reſerving to myſelf, however, the liberty of changing that name, if another, more expreſſive of their nature, ſhould occur. Theſe bodies will hold a middle rank between the two ſpecies that were known before; ſo that planets, aſteroids, and comets will, in future, comprehend all the primary celeſtial bodies that either remain with, or only occaſionally viſit, our ſolar ſyſtem.

"I ſhall now give a definition of our new aſtronomical term, which ought to be conſiderably extenſive, that it may not only take in the aſteroid Ceres, as well as the aſteroid Pallas; but that any other aſteroid which may hereafter be diſcovered, let its motion or ſituation be whatever it may, ſhall alſo be fully delineated by it. This will ſtand as follows.

"Aſteroids are celeſtial bodies which move in orbits, either of little or of conſiderable eccentricity, round the ſun, the plane of which may be inclined to the ecliptic in any angle whatſoever. Their motion may be direct or retrograde; and they may or may not have conſiderable atmoſpheres, very ſmall comas, diſks, or nuclei."

This paper is accompanied with one plate, and concludes with the following obſervations relating to the appearances of the aſteroids Ceres and Pallas.

"May 4. 12 h. 40′. Ten-feet reflector; power 516¼. I compared Ceres with two fixed ſtars, which, in the finder, appeared to be very nearly the ſame in magnitude with the aſteroid, and found that its coma exceeds their aberration but in a very ſmall degree.

"12 h. 50′. Twenty-feet reflector; power 477. I viewed Ceres, in order to compare its appearance, with regard to hazineſs, aberration, atmoſphere, or coma, or whatever we may call it, to the ſame phænomena of the fixed ſtars, and found that the coma of the aſteroid did not much exceed that of the ſtars.

"I alſo found, that even the fixed ſtars differ conſiderably in this reſpect among themſelves. The ſmaller they are, the larger in proportion will the attendant hazineſs ſhow itſelf. A ſtar that is ſcarcely perceptible becomes a ſmall nebuloſity.

"Ten-feet reflector. 13 h. 10′. I compared the appearance of Pallas with two equal fixed ſtars, and found that the coma of this aſteroid but very little exceeds the aberration of the ſtars.

"14 h. 5′. Ten-feet reflector. I viewed Pallas; and, with a magnifying power of 477, its diſk was viſible. The coma of this aſteroid is a little ſtronger than that which fixed ſtars of the ſame ſize generally have."

IX. *Deſcription of the Corundum Stone, and its Varieties, commonly known by the Names of Oriental Ruby, Sapphire,*

phire, &c. with Obſervations on ſome other mineral Subſta
By the Count de Bournon.

This is a paper of conſiderable length, and ably writte principally for the purpoſe of eſtabliſhing the identity of ſ ſtance between the corundum ſtone and ſeveral other orie ſtones, ſuch as the ruby, the ſapphire, &c. which were merly thought to be eſſentially different from the corundu

This author mentioned his ſuſpicion of the above-mentio identity in a former paper; but, having ſince extended hi ſearches, and having obtained additional proofs in corrobo tion of that ſuſpicion, he compriſes the whole in the pre paper. The greateſt part of the paper conſiſts of an exam tion of the various qualities of thoſe which are generally de minated *oriental* by the jewellers; ſuch as their colour, tr parency, hardneſs, phoſphoreſcence, gravity, cryſtalline for fracture and texture, phænomena with reſpect to light, character afforded by analyſis. From the ſimilarity of t qualities in the above-mentioned ſtones, this author is le conclude,

" that the analogy exiſting between the ſtones hitherto know the names of corundum, ſapphire, oriental ruby, oriental hyac &c. is ſo ſtrong and complete, as no longer to permit us to doub they ought all to be conſidered merely as varieties of the ſame ſtance, to which I have therefore given the general name of co dum."

The latter part of the paper contains an examination deſcription, firſt, of the compact corundum; 2dly, of matrix of imperfect corundum, as brought from the peni of India, and chiefly from the Carnatic; 3dly, of the ſtances which accompany the imperfect corundum; 4 of the matrix of imperfect corundum from China, and o ſubſtances with which it is accompanied; and, 5thly, o matrix of imperfect corundum from the iſland of Ceylon, of the ſubſtances with which it is accompanied.

Four copper-plate engravings are annexed to the p exhibiting the ſhapes, or cryſtalline forms, of the ſtones are mentioned in the courſe of the paper.

X. *Analyſis of Corundum, and of ſome of the Subſt which accompany it; with Obſervations on the Affi which the Earths have been ſuppoſed to have for each ot the humid Way.* By Richard Chenevix, Eſq.

The ſubject of this paper is clearly expreſſed in its firſt paragraphs, which are as follows.

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"Some kinds of corundum," this author ſays, "ſuch as the adamantine ſpar of China, and the ſapphire, have already been analyſed by Mr. Klaproth. This would have rendered any further experiments unneceſſary, were it not that I have had at my diſpoſal many kinds of corundum he did not poſſeſs; and alſo ſome ſubſtances accompanying it, which were unknown before the preceding communication of the Count de Bournon.

"As, from the reſult of my analyſes, it appears that all the different kinds of corundum are nearly ſimilar in their conſtituent parts, and differ only in their proportions, it would be tedious to mention every experiment I made upon each kind. I ſhall therefore confine myſelf to ſtating, once for all, ſuch modes of analyſis as were employed with ſtones of a ſimilar nature; and then preſent a ſummary of the reſults: laſtly, I ſhall conclude with an enquiry into a much-conteſted point, which lately threatened a revolution in docimaſtic chemiſtry."

Omitting to deſcribe the method purſued by this author for effecting the analyſes, we ſhall briefly ſubjoin the reſults, namely, the components of the corundum, &c. as determined by means of thoſe analyſes.

Blue perfect Corundum, or Sapphire.	
Silica	5,25
Alumina	92.
Iron	1.
Loſs	1,75
	100,00

Imperfect Corundum from the Carnatic.	
Silica	5.
Alumina	91.
Iron	1,5
Loſs	2,5
	100,0

Red perfect Corundum, or Ruby.	
Silica	7.
Alumina	90.
Iron	1,2
Loſs	1,8
	100,0

Imperfect Corundum from Malabar.	
Silica	7.
Alumina	86,5
Iron	4.
Loſs	2,5
	100,0

Imperfect Corundum from China.	
Silica	5,25
Alumina	86,50
Iron	6,50
Loſs	1,75
	100,00

Imperfect Corundum from Aſia.	
Silica	6,5
Alumina	87.
Iron	4,5
Loſs	2.
	100,0

The

The ſecond part of Mr. Chenevix's paper treats of the affinities which the earths have been ſuppoſed to have for each other in the humid way. This important point is examined with brevity, and at the ſame time with propriety. The author relates what has been done by other chemiſts; ſtates his own experiments; compares them with thoſe of the French chemiſt Guyton; and, laſtly, concludes with the ſtatement of the reſults, which are as follows.

"From the experiments which I have related, it appears to be proved,

"1ſt. That there exiſts an affinity between ſilica and alumina.

"2dly. That there exiſts a very powerful affinity between alumina and magneſia.

"3dly. That alumina ſhows an affinity for lime; but that the ſaid affinity is not ſo ſtrong as Mr. Guyton had ſuppoſed; nor, if pure reagents be uſed, is it to be perceived under the circumſtances ſtated by him.

"4thly. That Mr. Guyton was miſtaken in every inſtance of affinity between the earths, excepting in the caſe of ſilica with alumina, which had been obſerved before his experiments; and that, in the other caſes, he has attributed to a cauſe which does not exiſt, phænomena that muſt have reſulted from the impurity of his reagents.

"5thly. That neither the experiments of Mr. Guyton, nor the opinion maintained in the letter from Freyberg, are ſufficient to diminiſh, in any degree, the value of the aſſiſtance mineralogy derives from chemical inveſtigation."

XI. *Deſcription of the Anatomy of the Ornithorhynchus Hyſtrix.* By Everard Home, Eſq.

The ſubject of the preſent deſcription is a very remarkable animal, ſent from New South Wales, preſerved in ſpirits. It belongs to a newly-diſcovered tribe, of which one other ſpecies only has been brought to Europe; and has been deſcribed by the ſame author, in the firſt Part of the preſent volume of the Philoſophical Tranſactions; an account of which has been given in a former number of the Britiſh Critic.

The animal therein deſcribed is named *Ornithorhynchus Paradoxus*. That which forms the ſubject of the preſent paper is called *Ornithorhynchus Hyſtrix*.

The paper is divided into two parts, and is illuſtrated by four copper-plates. The firſt part deſcribes the external appearances, and the ſecond deſcribes the internal parts, of this ſingular animal, which is a male, nearly arrived at its full growth. We ſhall tranſcribe the deſcription of ſome of its external parts only.

"The animal is 17 inches long, from the point of the bill to the extremity of the tail; the bill is $1\frac{1}{4}$ inch long, and the tail $\frac{1}{2}$ an inch.

"The

" The body of the animal is nearly of the ſame general thickneſs, but rather larger juſt below the ſhoulders. The greateſt circumference of the body is 17 inches.

" The back and ſides are covered with ſhort coarſe hair, half an inch long, and with quills like thoſe of the porcupine, only ſhorter and leſs pointed; they appear to be ranged in rows, in the direction of the animal's length; thoſe on the ſides are 2½ inches long, the others between 1 and 2 inches. The quills on each ſide of the body, between the ſetting on of the hind legs and the tail, have a direction forwards, ſo as to be oppoſed to the others.

" The head and neck are covered with a coarſer hair than the reſt of the body, and are almoſt entirely without quills.

" On the breaſt, the hair is long and ſoft, and without quills; on the ſkin of the belly, it is almoſt entirely wanting.

" No appearance of falſe nipples could be detected, either on the belly or breaſt.

" The bill, which projects from the head in a tubular form, is 1¾ inch long. It is conical in its ſhape, convex upon the upper ſurface, and flat upon the lower; at its point it is $\frac{3}{8}$ of an inch in diameter, and $\frac{7}{8}$ at its baſe; it has the ſame ſmooth cuticular covering as the bill of the ornithorhynchus paradoxus, but has not the lateral lips, the ſides being cloſed to within half an inch of their extremity. The upper part of the bill is formed by an elongation of the noſe and palate; and the lower portion by a continuation of the two bones of the under jaw, as in the paradoxus.

" The noſtrils are two ſmall orifices, cloſe to each other, within a quarter of an inch of the end of the bill.

" The eyes are very ſmall, and are ſituated laterally on the head, cloſe to the baſe of the bill.

" The external ears are two oval ſlits, an inch long, ſituated nearer to the upper part of the head than the eyes, and 2½ inches further back.

" The teeth, if they can be ſo called, being, like thoſe of the paradoxus, compoſed of a horny ſubſtance, and not of ivory and enamel, as in all other quadrupeds, are not ſituated on the margin of the palate and lower jaw, but are confined to the tongue and ſurface of the palate. On the poſterior part of the tongue, which is thicker and broader than the reſt, there is a ſpace one inch in length and ¾ broad, covered with a ſtrong cuticle, and having about 20 ſmall teeth, blunt at their ends, projecting about $\frac{1}{10}$ of an inch; there are alſo ſeveral others, leſs prominent. On that part of the palate immediately oppoſite, there are ſeven tranſverſe rows of very ſlender horny teeth, with their points directed backwards: each row looks ſomewhat like a ſmall-toothed comb, laid flat upon the palate.

" The fore legs are ſhort and thick, and have five toes, with ſtrong blunt claws, intended probably for the purpoſe of digging; the middle claw is the longeſt, the others becoming gradually ſhorter. The leg, to the end of the longeſt claw, is three inches long; the palms of the feet are covered with a ſtrong cuticle.

" The hind legs are longer than the fore legs, and have five toes; four of theſe have long ſtrong claws, the innermoſt is the longeſt. The fifth toe is ſhort, and, being oppoſed to the others, reſembles a thumb.

thumb. The length of the leg, to the point of the longeſt claw, is ſix inches. Juſt at the ſetting on of the heel there is a ſpur, ſimilar to that of the paradoxus, only weaker and ſmaller; it is $\frac{3}{8}$ of an inch long."

"The tail is covered with hair, and is about half an inch in diameter; it terminates in a blunt end."

XII. *A Method of examining refractive and diſperſive Powers, by priſmatic Reflection.* By William H. Wollaſton, M. D.

The new method of examining the refractive and diſperſive powers of different ſubſtances, which is deſcribed in the preſent paper, Dr. W. acknowledges, was ſuggeſted to him by a conſideration of Sir I. Newton's priſmatic eye-glaſs, the principle of which depends on the reflection of light at the inner ſurface of a denſe refracting medium.

"Since," he obſerves, "the range of inclination within which total reflection takes place, depends not only on the denſity of the reflecting priſm, but alſo on the rarity of the medium adjacent to it, the extent of that range varies with the difference of the denſities of the two media. When, therefore, the refractive power of one medium is known, that of any rarer medium may be learned, by examining at what angle a ray of light may be reflected from it.

"For inſtance, when any object is laid under a priſm of flint glaſs, with air alone interpoſed, the internal angle of incidence at which the viſual ray begins to be totally reflected, and at which the object ceaſes to be ſeen by refraction, is about 39° 10′; but, when the object has been dipped in water, and brought into contact with the glaſs, it continues viſible, by means of the higher refractive power of the water, as far as 57°$\frac{1}{4}$ of incidence. When any kind of oil, or any reſinous cement, is interpoſed, this angle is ſtill greater, according to the refractive power of the medium employed; and, by cements that refract more ſtrongly than the glaſs, the object may be ſeen through the priſm, at whatever angle of incidence it is viewed.

"In examining the refractive powers of fluids, or of fuſible ſubſtances, the requiſite contact is eaſily obtained; but, with ſolids, which can in few inſtances be made to touch to any great extent, this cannot be effected without the interpoſition of ſome fluid, or cement, of higher refractive power than the medium under examination. Since the ſurfaces of a ſtratum ſo interpoſed are parallel, it will not effect the total deviation of a ray paſſing through it, and may therefore be employed without riſk of any error in conſequence.

"Thus, reſin, or oil of ſaſſafras, interpoſed between plate glaſs and any other priſm, will not alter the reſult.

"If, on the ſame priſm, a piece of ſelenite and another of plate glaſs be cemented near each other, their powers may be compared with the ſame accuracy as if they were both in abſolute contact with it."

After

After theſe obſervations, this author proceeds to deſcribe the conſtruction of the ſimple apparatus, he has contrived for this purpoſe, which is delineated on an annexed plate; he then ſubjoins the reſults of the different experiments he has made with this apparatus. Thoſe reſults are ſtated in three tables.

XIII. *On the oblique Refraction of Iceland Cryſtal.* By William H. Wollaſton, M. D.

The ſubject of this ſhort paper cannot be intelligibly explained, without the plate which accompanies it. We may only in general obſerve, that Dr. W.'s experiments and meaſurements, concerning the refractive power, and other properties of the Iceland cryſtal, mentioned in this paper, tend to corroborate Huygens's hypotheſis concerning this ſingular tranſparent mineral.

XIV. *An Account of ſome Caſes of the Production of Colours, not hitherto deſcribed.* By Thomas Young, M. D.

A ſufficient idea of the ſubject of this paper may be derived from its firſt two paragraphs, which are as follows; the reſt being not ſuſceptible of an intelligible abridgement.

"Whatever opinion may be entertained of the theory of light and colours which I have lately had the honour of ſubmitting to the Royal Society, it muſt at any rate be allowed that it has given birth to the diſcovery of a ſimple and general law, capable of explaining a number of the phænomena of coloured light, which, without this law, would remain inſulated and unintelligible. The law is, that wherever two portions of the ſame light arrive at the eye by different routes, either exactly or very nearly in the ſame direction, the light becomes moſt intenſe when the difference of the routes is any multiple of a certain length, and leaſt intenſe in the intermediate ſtate of the interfering portions; and this length is different for light of different colours.

"I have already ſhewn in detail, the ſufficiency of this law for explaining all the phænomena deſcribed in the ſecond and third books of Newton's Optics, as well as ſome others not mentioned by Newton. But it is ſtill more ſatisfactory to obſerve its conformity to other facts, which conſtitute new and diſtinct claſſes of phænomena, and which could ſcarcely have agreed ſo well with any anterior law, if that law had been erroneous or imaginary: theſe are, the colours of fibres, and the colours of mixed plates."

XV. *On the Compoſition of Emery.* By Smithſon Tennant, Eſq.

The ſubſtance called *emery*, is a granulated mineral of different fineneſs, and great hardneſs, which has been long uſed

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in various manufactures for grinding and poliſhing glaſs, metallic ſubſtances, &c. It has been commonly reckoned an iron ore, on account of the martial part it frequently contains; but it appears, that this mineral had not been properly analyzed previouſly to Mr. Tennant's examination, which examination or analyſis forms the ſubject of the preſent paper.

This author briefly deſcribes the method he purſued for this analyſis; then ſtates the reſults, from which it appears, that the proportion of ingredients is various in different ſpecimens of emery; but, in general, they are argillaceous earth in great quantity, ſiliceous earth and iron in ſmall quantities.

"From 25 grains," Mr. T. ſays, "of emery which appeared the moſt impregnated with iron, and yet retained its uſual hardneſs, I obtained, argillaceous earth 12,5, ſilex 2, iron 8, and one grain was not diſſolved."

The following remarks conclude the paper.

"The hardneſs of emery, as far as I could judge by its cutting rock, cryſtal, and flint, appeared to be equal to that of diamond ſpar. The latter could not be ſcratched by the former; but, as emery has not a ſurface ſufficiently poliſhed to render a mark viſible, the reverſe of this could not be tried.

"All the emery which is uſed in England, is ſaid to be brought from the iſlands of the Archipelago, and principally from Naxos. In thoſe places, it is probably very abundant; as the price of it in London, which I was told was 8 or 10 ſhillings the hundred weight, appears little more than ſufficient for the charges of carriage. Though I ſaw a very large quantity in one place (more than a thouſand hundred weight) I could not find any pieces of a cryſtallized form; poſſibly the great proportion of iron, uſually mixed with it, may prevent its cryſtallization. The whole conſiſted of angular blocks incruſted with iron ore, ſometimes of an octaedral form, with pyrites, and very often with mica. The latter frequently penetrates the whole ſubſtance of the maſs, giving it, when broken, a ſilvery appearance, if ſeen in the direction in which the flat ſurfaces preſent themſelves to the eye. As theſe ſubſtances have no chemical relation to the emery itſelf, it is remarkable that they ſhould alſo accompany the diamond ſpar from China; for Mr. Klaproth obſerves, that its lateral facets are moſtly coated with a firmly-adhering cruſt of micaceous ſcales, of a ſilvery luſtre: he alſo mentions, beſides felſpar, pyrites, and grains of magnetic iron ore."

XVI. *Quelques Remarques ſur la Chaleur, et ſur l'action des corps qui l'interceptent.* Par P. Prevoſt, Profeſſeur de Phil. à Genève.

This very extenſive paper, ably written, and printed in the French language, may be conſidered as an examination of Dr. Herſchel's late diſcoveries relative to the tranſmiſſion of heat.

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It ſtates, with appropriate praiſe, the methods purſued by that philoſopher for the performance of his numerous and valuable experiments; the author then ſubjoins a ſtrict examination of the nature and propriety of thoſe methods; points out ſome hitherto unobſerved ſources of error, or of uncertainty in the reſults, and accompanies the whole with judicious remarks. It may however be wiſhed, that the ſtyle had been leſs verboſe, and of courſe leſs fatiguing to the reader.

XVII. *Of the Rectification of the Conic Sections.* By the Rev. John Hellins, B. D. &c.

PART I.—*Of the Rectification of the Hyperbola; containing ſeveral new Series for that Purpoſe; together with the Methods of computing the conſtant Quantities by which the aſcending Series differ from the deſcending ones.*

This author juſtly obſerves, in the Introduction to the preſent paper, that the conic ſections are ſo generally requiſite in menſuration, in optics, in aſtronomy, and in various other branches of natural philoſophy, that too much attention cannot be beſtowed upon whatever relates to the elucidation of their properties.

The preſent paper, which goes no further than the rectification of an hyperbolic arc, is divided into three ſections; the firſt of which contains the inveſtigation of ſeveral ſeries; the ſecond contains the methods of computing the conſtant quantities by which the aſcending ſeries differ from the deſcending ones; and the third contains examples of their uſe, by way of illuſtration. But Mr. H. propoſes to continue the ſubject of the rectification of the conic curves on ſome future opportunity; for, he ſays,

"Having now produced ſeries, of good convergency, for computing the length of the arch from the vertex to the ordinate (and conſequently any portion of ſuch an arch) of any conical hyperbola, I ſhall conclude this paper with a few remarks: reſerving ſome other theorems, which I have diſcovered for the purpoſe, till I ſhall have found an opportunity to deſcribe nearly an equal number of theorems, which I have long had by me, for the rectification of the ellipſis."

XVIII. *Catalogue of* 500 *new Nebulæ, nebulous Stars, planetary Nebulæ, and Cluſters of Stars; with Remarks on the Conſtitution of the Heavens.* By William Herſchel, LL. D.

"Since the publication," this author ſays, "of my former two catalogues of nebulæ, I have, in the continuation of my teleſcopic ſweeps, met with a number of objects that will enrich our natural

hiſtory, as it may be called, of the heavens. A catalogue of them will be found at the end of this paper, containing 500 new nebulæ, nebulous ſtars, planetary nebulæ, and cluſters of ſtars. Theſe objects have been arranged in eight claſſes, in conformity with the former catalogues, of which the preſent one is therefore a regular continuation. This renders it unneceſſary to give further explanation, either of the contents of its columns, or the abbreviations which have been uſed in the deſcription of the objects."

Dr. H. then obſerves, that ſince the number of celeſtial objects, which, eſpecially of late years, have been diſcovered, amounts to a prodigious quantity; it becomes neceſſary for aſtronomers to arrange them in a more uſeful, conciſe, and ſcientific order. In fact, the claſſification adopted in his catalogues of double ſtars, nebulæ, &c. which have appeared in ſome of the volumes of the Philoſophical Tranſactions, is little more than an arrangement of thoſe objects for the conveniency of obſervers.

In the claſſification of the whole, which this author propoſes to publiſh,

"I ſhall," he ſays, "have to examine the nature of the various celeſtial objects that have been hitherto diſcovered, in order to arrange them in a manner moſt conformable to their conſtruction. This will bring on ſome extenſive conſiderations, which would be too long for the compaſs of a ſingle paper; I ſhall therefore now only give an enumeration of the ſpecies that offer themſelves already to our view, and leave a particular examination of the ſeparate diviſions, for ſome early future occaſions."

In conformity to the above plan, a great part of the preſent paper conſiſts of a general examination of the various objects which enter into the conſtruction of the heavens; and which are enumerated and defined under the following titles:

I. Of inſulated Stars. II. Of binary ſidereal Syſtems, or double Stars. III. Of more complicated ſidereal Syſtems, or treble, quadruple, quintuple, and multiple Stars. IV. Of cluſtering Stars, and the Milky-way. V. Of Groups of Stars. VI. Of Cluſters of Stars. VII. Of Nebulæ. VIII. Of Stars with Burs, or Stellar Nebulæ. IX. Of milky Nebuloſity. X. Of nebulous Stars. XI. Planetary Nebulæ. And, XII. Of planetary Nebulæ with Centres.

The examination of thoſe particulars is followed by the catalogue of 500 nebulæ and cluſters of ſtars, which are diſpoſed in the manner already mentioned.

Two plates are annexed to this moſt valuable paper.

This ſecond Part of the volume of the Philoſophical Tranſactions for the year 1802, is concluded with a Liſt of the Preſents received by the Royal Society, between November, 1801, and July, 1802; and the Index for the whole volume.

ART.

ART. II. *A Journey from Edinburgh through Parts of North Britain; containing Remarks on Scottiſh Landſcape, and Obſervations on Rural Œconomy, Natural Hiſtory, Manufactures, Trade, and Commerce; interſperſed with Anecdotes, traditional, literary, and hiſtorical; together with biographical Sketches, relating chiefly to civil and eccleſiaſtical Affairs, from the Twelfth Century to the preſent Time. In Two Volumes, embelliſhed with Forty-Four Engravings, from Drawings made on the Spot, of the Lake, River, and Mountain Scenery of Scotland. By Alexander Campbell.* 4to. 4l. 4s. Longman and Rees. 1802.

SO much hiſtorical narrative, and ſuch numerous local anecdotes, are introduced in theſe volumes, that the Journey itſelf, and the ſubjects immediately connected, occupy no more ſpace than might have been contained in one octavo volume, and that too of moderate ſize. Indeed, the ſecond volume is almoſt entirely filled with the account of Edinburgh itſelf.

We cannot ſay that we have experienced much ſatisfaction from the peruſal of theſe volumes, which we preſume, from internal evidence, to have been written by a young and inexperienced man. From this conſideration, we might be induced to excuſe the compliment to Bonaparte in the Introduction; and the very mild terms in which the leaders of the various rebellions which diſtracted and depopulated Scotland, are every where named. But, in the ſecond volume, we have this curious ſentence, which we tranſcribe with a mixture of pity and contempt.

"Every deviation from the preſent eſtabliſhed order of things is looked on with a jealous eye; hence the Miſſionary Society, even in its infancy, has challenged the attention of the vigilant ſupporters of *exiſting circumſtances.*"

We have met with ſimilar inſinuations in other parts of theſe volumes, which, if they mean any thing, muſt mean miſchief. However, as we believe the writer to be a young man, we hope he will in time know better.

It may hardly ſeem candid to diſmiſs two ponderous volumes of great price, without exhibiting a ſpecimen of their ſtyle and manner, we therefore give the following extract.

"Blended with the good qualities of the heart and the underſtanding, many weakneſſes are found among a people but limited in their range of acquired knowledge, in either art or ſcience. Superſtition, the offſpring of ignorance and credulity, whether in poliſhed or in rude ſociety, ſeems even at this day, not altogether extinguiſhed in our

Highland diſtricts. Although many obſervances that were till of late ſtrictly attended to by the natives of theſe mountains, have fallen into diſuſe; or, if heeded at all, rather form part of their ſports than their devotion; yet a few may be noted in this place, as rather characteriſtic of paſt times than of the preſent. Some of the ſuperſtitions in the Highlands are ſuch as are common among the vulgar of moſt European nations: for example, Brounie (or Robin good-fellow) fairies, ſprights, hob-goblins, ſpectres, and the like, were till lately believed in, as alſo witches, and thoſe poſſeſſed of the faculty of ſecond ſight. Theſe, together with the remains of Druidiſm and Chriſtianity, corrupted by Romiſh idolatry, made up the ſuperſtition of our Highlands of Scotland.

" Martin, Pennant, and ſeveral of the writers of Sinclair's Collection of Statiſtical Accounts, having already noticed at conſiderable length moſt of the ſuperſtitious practices that till lately prevailed in many parts of our mountainous diſtricts, the reader is referred to the works of thoſe ingenious authors, as containing, ſo far as conſiſts with the knowledge of the preſent writer, very faithful and circumſtantial accounts relative to the ſubject in queſtion. It is therefore unneceſſary to dwell in this place, on any particular cuſtom, or relic of the abſurdities that may have ariſen from the hopes and fears to which human nature is prone in a ſtate of rudeneſs and ſimplicity. But as a few inſtances may ſuffice to exhibit the nature and general ſcope of the whole ſyſtem, theſe ſhall be placed in the order following, that is, from the birth of the Highlander to the time of his death and funeral.

" The cold-bath was ſo much eſteemed by the ancient race of Highlanders, that as ſoon as an infant was born he was plunged into a running ſtream, and wrapped carefully in a blanket; and ſoon after he was made to ſwallow a ſmall quantity of freſh butter, to accelerate the diſcharge of the mecomium. When an infant was chriſtened, in order to counteract the power of evil ſpirits, witches, &c. he was put on a baſket with bread and cheeſe wrapped up in a linen cloth, and thus the baſket and its contents were handed acroſs the fire, or ſuſpended on the pot-crook that hung from the joiſt over the fire-place.

" Immediately after this ceremony, a diſh of crowdie (a mixture of oatmeal and water) was preſented, and each of the company took three horn-ſpoonfulls. The mother of the infant, as ſoon as kirked, could go about her ordinary concerns; but, till this religious rite was performed, every thing that ſhe happened to touch was deemed unclean and avoided.

" Charms were in great eſtimation among the Highlanders; ſuch as necklaces, pieces of mountain-aſh ſewed up in their garments, &c. If a Highlander heard a ſudden guſt of wind, he was ſure to ſearch it with his broad-ſword; and it frequently happened, that a corpſe dropped from the paſſing blaſt, the ill-fated wife of ſome of his relations, who had died in child-bed. At times, to protect himſelf from the men of peace (for ſuch, by way of courteſy, the Highlanders call fairies) he would draw a circle with a ſapling oak, and bid defiance to their power.

" Lucky

"Lucky and unlucky days were attended to among the Highlanders no leſs ſcrupulouſly than among the Romans, and other ancient tribes: the 14th of May, in particular, was an untoward day.

"When a journey commenced, particular attention was paid to the objects that preſented, whether animate or inanimate; and in this alſo the Highlanders reſembled the Romans in their ſuperſtition.

"The 11th of May, N. S. or Beltan-day, was ſet apart for feſtivity, as was the 31ſt of October, O. S. being Halloween. Juſt as the ceremony of marriage is about to begin, every thing that was tied about the young couple is unbound, in token, perhaps, of the liberty which they mutually exchange in the bonds of matrimonial union; and, as ſoon as the ceremony is over, the bride with her women, and the bridegroom with his male friends, retire in ſeparate parties, and different directions, to bind all faſt as before. The revelry next begins. Muſic and the dance, and whiſky in abundance, crowns the feſtival. The preſents of relations are made the next and ſucceeding days, the young folks being left to enjoy the endearments of conjugal happineſs. When diſeaſes, which are chiefly of the acute kind, make their attack on the Highlander, he endeavours to procure evacuation, by vomit or ſtool, or profuſe perſpiration. If theſe fail, he takes no food, and truſts to nature for a cure; but if he remains any length of time in pain or ſevere illneſs, ſuperſtitious practices are reſorted to; and, as in the caſe of glaccah, known by the name M'Donald's diſeaſe (as certain individuals of that clan are ſaid, by handling the patient, and in the act repeating ſome words, to promote a cure) charms, amulets, and other means, are employed to reſtore health to the ſyſtem.

"On the death of a Highlander, the late wake was followed by the coranich: for ſome time back, the coranich has fallen into diſuſe; and the bagpipe, which ſucceeded, has alſo ceaſed to be played before the corpſe of the deceaſed as it is borne to the place of interment. In ſhort, the cuſtoms and manners of the Highlanders, ſince the intercourſe with the inhabitants of the Lowlands, are becoming daily leſs peculiar; and it may ſoon be difficult for the curious enquirer to trace any diſſimilitude in the cuſtoms or manners of either deſcription of the inhabitants of the northern parts of our iſland." P. 259.

The plates are ſlight, and of unequal execution. They principally fail in the repreſentation of water. That, for example, of Caldron Linn, vol. ii. p. 365, is like any thing but water. We cannot think, on the whole, that many individuals will be diſpoſed to give the extravagant price of four guineas for two volumes, which communicate very little information that may not elſewhere be obtained, at a far cheaper rate, and in quite as agreeable a manner.

ART.

ART. III. *Chronicle of Scottiſh Poetry, from the thirteenth Century to the Union of the Two Crowns: to which is added a Gloſſary, by J. Sibbald. In Four Volumes.* 8vo. 1l. 4s. Sibbald, Edinburgh; Nicol, and Longman, London. 1802.

THIS compilation, like other collections of ancient Scottiſh poetry, is founded principally on two celebrated manuſcript volumes, the one called the *Maitland*, the other the *Bannatyne MS.* the latter of which is preſerved in the Advocate's library at Edinburgh. Allan Ramſay, Lord Hailes, and Mr. Pinkerton had founded publications on theſe MSS. but the two former having become ſcarce, the editor (who appears to be the bookſeller alſo) has thought that a republication of them in a chronological arrangement would be acceptable to the public. Beſides theſe materials, "the lovers of ancient poetry are here accommodated with a better edition of the works of *Sir David Lindſay* than has been given to the public for theſe two hundred years." The Poems of Alexander Hume of Polwarth, James VI. and many others, will alſo be found in their proper places.

Reſpecting his own talent for critical diſquiſition, the editor ſpeaks with great modeſty; yet his arguments and notes are often valuable, and his Gloſſary in the laſt volume, compriſing not leſs than ſix thouſand words, is a compilation of great merit and utility. The arrangement of the Poems in a chronological order will be pleaſing to many readers, as giving at once a kind of hiſtory of the progreſs of the language. We cannot perhaps better give an idea of the nature of a compilation too extenſive to be ſtrictly analyſed throughout, than by inſerting a ſhort Poem entire, with the editor's argument and notes. This we take, not from the earlieſt part, as more obſcure, but from the reign of James V. which was in the firſt part of the 16th century.

"SONS EXYLIT THROW PRYD.

"[In this curious poem there is no circumſtance which preciſely aſcertains its author or date. To paſs over the firſt of theſe particulars, as of ſmall importance, the ſubject, and the manner in which it is treated, are ſo ſimilar to DUNBAR's poem on Coveteouſneſs, p. 17, that we may reaſonably conclude it to have been written nearly about the ſame time; at leaſt, during the minority of JAMES V. It is plain, that in his father's time the nobility began to frequent the court; the conſequence of which was, expence flowed in a different channel; there was leſs hoſpitality, and more luxury. This was a happy ſubject for ſatire; and it ſeems here to have fallen into very good hands.]

"Sons

I.

" Sons hes bene ay exilit out of ſicht,
Sen every knaif wes cled in ſilkin weid;
Welfair and welth ar went without gud nicht,
And in thair rowmis remanis derth and neid:
Pryd is amangis us enterit, bot God ſpeid,
And lerd our lordis to go leſs and mair
With ſilkin gownis, and ſellaris tume and bair.

II.

" Now ane ſmall barronis riche abelyement,
In ſilk, in furreingis, chenyeis, and uthir geir,
Micht furneis fourty into jak and ſplent,
Weill bodin at his bak with bow and ſpeir;
It war full meit, gif it happinis be weir,
That all this pryd of ſilk war quyt laid doun,
And chengit in jak, knapſcha, and abirgeoun.

III.

" Wald all the lordis lay up thair riche arrayis,
And gar unſulyeit keip thame clene and fair,
And weir them bot on hie triumphand dayis,
And quhen ſtrangeris dois in this realme repair;
They neidid not for to buy ſilkis mair
Thir twenty yeir, for thane and thair ſucceſſioun,
Gif ſinfull pryd nocht blindit thair diſcretioun.

IV.

" Thair men alſo mon be bot ſmyt or ſmoit.
Fra his caprouſy be with ribbanis left,
(With welwet bordour about his threid-bair coit,)
Or woman-wayis, weill tyit about his weſt,
His hat on ſyd ſet up for ony heſt;
For hichtines the culroin dois miſken
His awin maiſter, als weill as uthir men.

V.

" Quha ſynnis in pryd, dois firſt to God grevance,
Quhilk out of hevin to hell gaif it ane fall;
Syne of himſelf he weſtis his ſubſtance
Sa lerge, that it ourpaſſis his rentall;
His peur tennentis he dois oppreſs with all:
His coiſtly gown, with taill ſo wyd outſpred,
His naikit ſermouris garris hungry go to bed.

" The vulgar think, that it is a fine thing to wear fine cloaths; and therefore, with their idea of Scottiſh nobles in every age, they connect ſilk, and lace, and embroidery. If there is faith in poets, ſilk, lace, and embroidery were phænomena in the reign of James V. H.

" This poem ſeems rather to prove the contrary. And the Statute Book ſhews that ſilks and other ſuch finery had not been phenomena in the four preceding reigns. Act 119, of James I. *anno* 1429, ordains that " na man ſall weare claithes of ſilk, broderie, &c. but allenarlie

Lords of twa hundredth merkis of yeirlie rent." Act 70, of James II. *anno* 1457, repreſents the Realme as being "greatumlie pured throwe ſumptuous claithing of ſilk and ſcarletts, in ſpecial within burrowes and commouns of landwart;" and therefore confines the uſe of them to "great Lords, and to baillies of burghs, or uther gude worthy men of the Councel, and thair wives." Act 46, of James III. *anno* 1471, conſidering the great expences and coaſt maid upon the in-bringing of ſilk into the Realme, enacts that na man ſall weare ſilkes in time cumming, in doublet, gowne, or cloakes, except knichtes, *minſtrellis*, and herauldes; without that the wearer of the ſamin may ſpend annually ane hundreth pundes of land rent, *except the claithes that ar maid befor this Parliament.*"

"From the frequent repetition of theſe ſumptuary laws, we muſt conclude, that the evil continued through the whole of theſe reigns, to exiſt in ſome conſiderable degree.

"St. 2. l. 7. "*Jak, knapſcha*, and *abirgeoun*." Act 81, of James III. ordains that "thay that wantis legge harnes ſaull garre maik thair *jackkis* (jackets of mail) ſide to the knee." *Abirgeoun*, or haubergeoun, *Fr.* ſignifies, ſleeves with a gorget of mail. *Knapſcha*, a bag for holding victuals; from the Teutſch *knappen*, to eat; and *zak*, bag. *Splent*, is armour for the legs.

"St. 3. l. 4. "And quhen ſtrangeris dois in this realme repair;" i. e. keep your rich cloaths till foreigners viſit you, and they may laſt you for twenty years and more. The entailing "riche arrayis unſulyeit, clene, and fair, to thair ſucceſſioun," is a ſumptuary law, ſingular in its nature.

"St. 4. l. 2. *Caprouſy*, from the *Fr. cappe-roſin*, a red-coloured ſhort cloak, with a cowl or hood, occaſionally to cover the head.

"——l. 3. "With welwet bordour about his threid-bair coit." This portrait of *ambitioſa paupertas* has been drawn from the life. The whole ſtanza is highly finiſhed. The picture of a ſerving-man with a thread-bare coat and new velvet lace, not diſtinguiſhing his own maſter, is happily imagined.

"In the time of Henry IV. Thomas Occlive wrote a ſimilar poem on "Waſt Clothing:"

"But this me thynketh an abuſion
To ſene one walke in a robe of ſcarlet
Twelve yerdis wide, with pendaunt ſlevis downe
On the ground, and the furrer therein ſet,
Amounting unto twenty pund, or bett'.
And, gif he for it payd, hath he no good
Lefte him wherwith to by himſelf an hood.
Now have thes Lordis but litill need of bromes
To ſwepe away the fylth owt of the ſtrete;
Sithyn ſide ſlevys of penyles gromes
Will it up-lyk, be yt dry or wete.

"Not many years after, fooliſh pride ſo deſcended to the foot that it was proclaimed that no man ſhould have his ſhoes broader at the toes than ſix inches; and women," ſays Camden, "bummed themſelves with foxes tails under their garments, as they do now with

Fren-

French farthingales. Nor do I think that our vanity could be ſtayed even by the laws of Zaleucus the Locrian, who ordained that no woman ſhould wear gold or embroidered apparel, but when ſhe purpoſed to commit adultery; nor be attended with more than one maid in the ſtreet, but when ſhe was drunk." *Remains.* P. 27.

The French have a work, entitled "Annales poetiques," but it is very voluminous, as an Engliſh work of the ſame kind muſt be; unleſs formed, like the judicious and critical publication of Mr. G. Ellis, of ſhort ſpecimens and ſelections. The preſent work is moderate in ſize, and is executed in a manner not uncreditable to the editor, and very reaſonable in price. The fourth volume is entirely occupied by the Gloſſary, excepting an introductory diſcourſe of learned reſearch, on the origin of the terms *Picti*, *Caledonii*, and *Scotti*. Muſical notes are occaſionally introduced, not only for preſerving particular melodies; but alſo, in the Diſſertation, to illuſtrate the verſification of different periods.

ART. IV. *Remarks on Currency and Commerce. By John Wheatley, Eſq.* 8vo. 262 pp. 6s. Cadell and Davies. 1803.

THIS work abounds with new conſiderations on many of the leading points of theſe important ſubjects; and, in the laſt chapter, Mr. Wheatley applies his concluſions to the compariſon of the burthen of the taxes at different periods; and it has been received with conſiderable approbation.

This author reſts the whole of the ſyſtem he advances on three main principles or propoſitions, which we ſhall examine.

The firſt of theſe propoſitions is, that an increaſe of the national ſtock of ſpecie is an increaſe of currency, (p. 3) and not of capital: this principle we think erroneous.

Metallic money being made, by univerſal convention, the equivalent in exchange for all commodities and preſtations, in conſequence thereof, it became indeed the common meaſure of value; but this excludes it not from being capital, as Mr. W. contends. Oxen, in the time of Homer, were the medium of exchange, and the common meaſure of value; yet, at the ſame time, capital and conſumeable capital: and every one of the arguments employed by Mr. Wheatley to prove money not to be capital, will equally apply to prove all commodities which have received the laſt finiſhing, exceeding the quantity which the owner himſelf can make uſe of, not to be capital: as the finiſhed clothes in the warehouſe of the wholeſale tay-

lor; the books in the ſhop of the bookſeller; the bread in that of the baker. We cannot ſtop to ſhow this; but obſerve, that even from what he admits, the negative of his propoſition may be demonſtrated; "that the money in the hand of an individual merchant at any one time conſtitutes a part of his capital." For, as the ſame muſt be true of every merchant, trader, and money holder, the whole money poſſeſſed by all muſt be part of their whole capital collectively, that is, of the national capital. But the money, he ſays, that is, the ſuppoſed capital of Caius at one moment, may be that of Titius the next; and, in a ſhort time, may conſtitute the capital of five hundred: to this it is replied, that, if the firſt or ſecond alienation does not diveſt it of its nature of being capital, no repetitions of alienations can effect it; for if they could, their number could be aſſigned. Caius, a merchant at Oporto, ſells to Titius, in London, a pipe of port wine for ready money; it then becomes part of the capital of Titius, but the capital of Caius is not diminiſhed by the ſale; therefore the money he has received is capital. Titius ſells it to Marcus, a wine merchant in the country; and he again to an inn-keeper: it thus paſſes into different hands; but having been, in the firſt, part of the national capital, it continues ſo in the poſſeſſion of each, and until conſumed; nor do repeated alienations alter its nature as ſuch: repeated alienations, therefore, do not prove coin not to be capital.

The author's ſecond propoſition is, that an increaſe of currency does not *conſtitute* an increaſe of wealth; by which he means, the national aggregate of product for conſumption. The propoſition may be granted, but this applies only to an ideal caſe. The propoſition which deſerves to be conſidered is, whether ſuch increaſe is not the cauſe of ſome increaſe of the real wealth. He ſets himſelf, under this head, to prove the negative: we have long held the affirmative; but, that ſuch augment of real wealth is conſiderably leſs than in the ſimple ratio of the augment of currency; whence the ſame muſt, of arithmetical neceſſity, be true of the advance of price; which ſome paſſages of Mr. W.'s tract ſeem to controvert.

In England it is evident, that from the Revolution to this time, product, currency, and prices have been each on the increaſe, but with their ſeveral degrees of celerity. At the former period, we had a population of about $5\frac{1}{2}$ millions*; and in 1800, of 9,300,000 nearly. Our quantity of ſpecie was alſo, by the beſt authorities we have, $14\frac{1}{2}$ millions in 1688;

* Davenant and King.

and, as the credit of paper, of which there was a great quantity before, according to Davenant, was, in a manner, annihilated by the events of that time, this was then nearly the total amount of our currency. Suppoſe it, in any period of time, to have been augmented in the great proportion of 4·2423 to unity, or to have become 61,514,000l. if the national product had continued fixed, it muſt be admitted, that the average price of commodities would have increaſed in the ſame proportion: and if, in the firſt period, it had been as 224, the rate to be deduced from the table at the end of this work; in the latter, it would have been as 950. But this deduction is true only in the caſe aſſumed, that the product of ſuch a country remains abſolutely fixed: if it increaſe or diminiſh, the prices will be directly as the currency, and inverſely as the product. Let it be now taken, that, in this period, the product had increaſed in the ratio of 1·69 to unity; the ratio of the prices at the two periods will become that of 224 to 950 ÷ 1·69; or of 224 to 562, the ratio of prices in 1688 and 1800 by Sir G. S. Evelyn's table: and, if the average conſumption of the people of this nation per head had been nearly the ſame during that period, the total increaſe muſt have been derived from the circumſtance, that the number of the people had been increaſed in the above ratio of 1·69 to unity, or that of $5\frac{1}{2}$ to $9\frac{3}{10}$, which is the proportion in which it appears that our population increaſed from 1688 to 1800. It is, however, tacitly ſuppoſed, in this reaſoning, that our currency, at both periods, performed the ſame number of functions in equal times; or, as it is commonly expreſſed by an ill-choſen metaphor (which, being too literally underſtood, has produced much unintelligible diſcuſſion) that it has *circulated* with the ſame celerity.

On the propoſition in the abſtract, it may be added, that the effects of every augment of currency may be regarded as twofold; for if it come firſt into the poſſeſſion of traders, as the application of all their receipts are diviſible into two branches, their productive capital and expenditure; the fund for each of them will be increaſed by ſome proportion of this augment: and the increaſe of the latter will be carried into the market, for objects which would not have been there demanded by them; and this increaſe of demand will cauſe an increaſe of product to ſatisfy it, which will be ſupplied to a certain extent, without diminiſhing that of any other article. But it will alſo have a ſecond operation, to raiſe prices: and, if the augment of currency come firſt into the hand of thoſe who ſubſiſt upon income, the acquirers will apply a greater proportion of it for preſent expenditure: but prices cannot riſe, except by an increaſed ratio of demand to ſupply, or by combination: the latter

ter Mr. W. does not take into conſideration; and, in this ſtate of the queſtion, it ought not to be conſidered.

Mr. W.'s third propoſition is, that no nation can poſſeſs a greater relative currency than another, that is, relative to its aggregate product. That, in two countries which have an unreſtricted trade in any commodity, or ſet of commodities, with each other, a conſiderable variation of the price of any one in the one, may effect ſome variation in its price in the other, is indiſputable; or that the prices of ſuch commodities in each have a tendency to equality; but the effect of tendency frequently ceaſes before any movement is thereby generated; or, after it has been generated, before it has reached the point to which it is directed. The difference of prices in diſtant countries may be ſo great, as to overcome the obſtacles to the transfer of commodities from the one to the other; but, when this diminiſhes, the attraction becomes leſs, and, at length, no greater than the power of the obſtacles, at which time transfer ceaſes; and there are frequently other obſtructions, beſide the price of carriage and legal prohibitions, which produce great effects.

To fortify this general poſition, Mr. W. contends, that the peaſant or manufacturer would not ſell his labour at one place for leſs, if, by removing it to another, he could ſell it for more of the neceſſaries of life. This has not in general been the caſe, even in the different parts of the ſame empire. The circumſtance has indeed its tendency to promote the transfer of labour; but, with the great majority of thoſe who had ſuch labour to transfer, it has, by oppoſite cauſes, been rendered of no effect. In the colony of New York, before the revolt, the wages of all labour were much higher than in England: thoſe of carpenters and bricklayers were equal to 4s. 6d. ſterling*; and the price of the neceſſaries of life having been leſs by $\frac{1}{4}$ in the former than the latter, that ſum was equal to 5s. 7½d. in England, where the wages of the ſame artizans was at that time 1s. 9d. a day only†. If this principle had been even generally, although not univerſally true, a diſparity in the wages of the ſame labour, in the proportion of 7 to 2, would have vaniſhed, by a great migration, as ſoon as it was known to exiſt; eſpecially as the removal of the workman was to be into a country where his own language was ſpoken. Nor do the prices of the ſame commodities thus come to a level in the ſtates of the ſame ſovereign that are very near to one another. About 1778, Mr. Young found the price of proviſions in Ireland to

* Smith, vol. i. p. 105.

† Young's Ireland, vol. ii. p. 126.

thoſe

thoſe in England in the proportion of 11 to 14, while that of the rent of land was only as 5 to 11*, or leſs than one half.

The three principles which we have here conſidered, Mr. W. proceeds to apply to a known theory of the balance of trade. If what has been ſaid above is juſt, it muſt follow, that whatever may be the fallacies of that theory, they cannot be legitimately ſhown from thoſe principles; and we know not of what great reputed maſter in the ſcience of political œconomy they were the diſciples, who, before the time of Hume and Smith, maintained, that the quantity of money imported (in given periods) would neceſſarily point out the acceſſion made to our national wealth. We believe that King and Davenant continued to give the law to the popular opinion up to that time; and they diſtinguiſhed particularly between the reputed balance of trade to be paid annually in the metals, and the yearly ſuperlucration of the kingdom: the former was eſtimated by Mr. King, in 1688, to have amounted to 700,000l.† and the latter to 2,401,200l. We contend not, however, that the yearly balance of the ledger of the Inſpector General, with all the corrections which have been recently made to apply it to actual uſe, will enable us nearly to approach to the annual import of the precious metals into Great Britain. It is evident, indeed, that we do annually acquire ſome part of the yearly product of the American mines. Now this receipt is diviſible into four parts; the augment of coin, of the trading ſtock of bullion, of plate, and the precious metals waſted in the arts and in manufactures. If it be ſuppoſed, that our gold and ſilver money amounted in 1798‡ to 45,450,000l.§ and the computation of Mr. King for 1688 be admitted, its increaſe will be 30,950,000l. in 110 years, or barely 281,000l. a year. The beauty and elegance of our porcelains have much reſtrained the increaſe of plate in opulent families; and an annual addition to the ſtock of 100,000l.‖ is as much as can probably be taken to be made.

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* Young's Ireland, pp. 149, 88.

† Davenant, vol. ii. p. 271.

‡ A very different account is given by Mr. W. p. 66, who makes the amount of the coin 5 millions only, of the paper 20 millions, and the currency 25 millions, which is 4½ millions leſs than that of the gold and ſilver exiſting in 1777. See alſo Roſe's Brief Examination, Appendix, No. 4. Mr. W. will find a difficulty to reconcile this with the great depreciation of currency ſince 1777.

§ More nearly £.46,816,000. Review of Roſe's Brief Examination. Vol. xiii. p. 517. *Editor.*

‖ Annual augment of plate to that of money, taken as 10 to 28, its total value will be about 16 millions; and the ſame is true of the mercantile commodity bullion.

Smith

Smith ſays it is very ſmall. The ſame writer ſtates the waſte of the precious metals at Birmingham to have been, in his time, 50,000l. a year: it is now increaſed; and may probably be taken always to exceed one half of that of the kingdom at large; whence that waſte may be now taken at 150,000l. a year. Our total yearly balance of bullion does not therefore probably exceed 631,000l.* and the annual augment of our ſtock in plate, bullion and coin 481,000l. a very different reſult from that which appears on the balance of the Inſpector's ledger.

Mr. W. divides our commerce into three great branches; the home, the colonial, and the tranſit trade: the firſt of theſe terms is conſtantly, by other writers, applied to the internal trade, in our own products and manufactures: he means, however, the export of Britiſh manufactures†; and his principle all along is, that the importation of products of natural uſe is more beneficial, and a better object of national purſuit, than of their equivalent price in bullion. The full diſcuſſion of this principle we cannot undertake: it approaches nearer to the truth than the oppoſite opinion; and, while the precious metals in Europe are increaſing, all nations not poſſeſſing mines muſt draw their portion of them to themſelves, by a favourable balance of bullion: and the beſt condition of the firſt commercial country will be, to be *prima inter ſuppares*. In ſpeaking of the colonial trade, Mr. W. cenſures the reſtrictions on the Weſt India planters. What is ſaid on this ſubject, muſt be paſſed by with the following remark. The effect of the duties they pay on the importation of their products is more than counterbalanced by the encouragement given to re-exportation, and that in a degree pregnant with danger. The Weſt Indian abſentees are numerous in this country, and their income increaſes with more celerity than that of the old gentry of the land; one claſs of whom they overſhadow to-day, or ruin them by the attempt to rival them, and another to-morrow, without any public advantage.

Our trade in the Eaſt-Indies is rightly brought into this diviſion, being effectively colonial; and here occur many animadverſions on the preſent ſyſtem, which compels private Britiſh

* About $\frac{1}{9}$ of the product of the American mines diſtributed annually over Europe. If, therefore, our regular annual proportion be not leſs than $\frac{1}{5}$, our coin probably muſt amount to more than 40 millions. According to Mr. G. King, about $\frac{2}{3}$ of that yearly product is waſted, or exported out of Europe.

† He elſewhere has uſed the technical terms of the ſubject in improper ſenſes, and even thoſe of arithmetic, ſpeaking of ratios. In p. 238, we find mention made of "a common rule of three ſum."

property in commodities, to be imported into Europe in foreign ſhipping, and into foreign ports; and *that monſter in policy*, the revenues of an empire, which amount to ten millions in the firſt inſtance, being under the direction of a ſmall elective body of merchants. That the management of this revenue might be aſſumed by the ſtate, without injury to our conſtitution of government, as laid down by Mr. W. is a poſition which cannot be reaſonably oppoſed: for its permanency depends on the preſervation of the proportion of the powers of its component parts, and not on their abſolute meaſure. An increaſe of power ſomewhere, would be the conſequence of ſuch a change; but if the addition made to each of them were ſo regulated, as to preſerve the preſent proportion between them all, if every part were ſo ſtrengthened, how would the ſtrength of the whole be impaired? or the relative importance of any one diminiſhed?

The fourth chapter is on the depreciation of money ariſing from the increaſe of currency, and Mr. W. generally ſpeaks of its abſolute increaſe as producing this effect. But it is to its relative augmentation only, compared with that of product, that it is to be aſcribed: for if both be taken as abſolutely increaſing, but the latter or product with the greater celerity, it is evident that the value of currency, or that of money, muſt riſe; for that value is always directly as the national product, and inverſely as its total currency. As, for inſtance, if product be augmented in any proportion, as $\frac{1}{5}$, and currency in ſome inferior ratio, as $\frac{1}{10}$, it is evident that the currency, although increaſed in quantity, muſt riſe in value; and, in the caſe aſſigned, in the proportion of 120 to 110, or 9·09 per cent. But when product and prices increaſe together, which has been the caſe during the whole of the laſt century, the currency muſt have increaſed in a greater proportion than the product, and in the compound ratio of product and prices. This alone conſtitutes a relative increaſe of currency, of which the conſequences in general, deduced by Mr. Wheatley, will hold good*; and currency is as much augmented by new paper, as by new coin.

When Mr. W. enters upon the hiſtory of the increaſe of currency, by the emiſſion of paper and its conſequences, he ſeems to aſcribe to the Bank of Amſterdam an effect in augmenting that of Holland, greater than was conſiſtent with its

* Mr. W. admits this principle, pp. 204, 5; but contends that the augment of product may be neglected, and that wrongly, as we ſhall afterwards ſee.

con-

conſtitution. As a bank for ſimple depoſit of money, it had no ſuch effect. The transferrable credits it granted, called Bank money, were even ſomewhat leſs than the ſums depoſited in its coffers; but in various rates, the maximum of which was about 9l. per cent. This money, by its inſtitution, was to have been preſerved there, until payment in coin for Bank money was demanded; thus far no addition to the currency was made. A ſimilar credit was alſo granted for bullion depoſited in the Bank; and the limit of the augmentation of currency, was the amount of the depoſited bullion. Theſe initial regulations, however, had been in ſome meaſure departed from; for, when the French entered Amſterdam, in the laſt war, it was found that the Bank had, in nearly half a century, advanced upon Eaſt-India and provincial bonds, to the city of Amſterdam, and on ſome other ſecurities, about 10,385,000 florins* ; and, by the part of theſe advances then remaining due, they had increaſed the currency of the country. Such banks, while they adhere to their primitive inſtitution, can increaſe the currency of a country, only as its reſting balance of bullion increaſes; but this, by the Coinage Act, any private merchant may here effect gratis; whereas a great part of the evils of paper-money may be removed, by adopting the more ſober ſyſtem of banks of depoſit, in the place of that of banks of circulation as they are called.

Reſpecting the extent of paper credit before the Revolution, this writer inclines too much to the common error, when he ſays, it was principally limited to the negociations of commerce, and that goldſmiths' notes were ſeldom admitted in the ordinary buſineſs of retail trade. On what contemporary authority he ſtates this, we profeſs not to know; this trade was the home trade; and Davenant aſſerts, that it was carried on by notes, "almoſt without the ſpecies of money". Rents and taxes he affirms to have been paid by their means. If theſe notes were not in very general circulation throughout the kingdom, how were they collected by the farmers in the country for this purpoſe? Mr. Wheatley, according to his principles of paper cre-

* New Annual Regiſter, 1795, p. 179; at the par of exchange, 1,038,500l. It is to be noted, that the taxes in Holland were much more burthenſome than thoſe of Great Britain; that is, bore a greater proportion to the national income, yet they were well paid. A national bank of ſimple depoſit lends ſufficient aid for a greater ſtate to collect a great revenue. Public loans were obtained with as much eaſe as in ſtates whoſe national banks are on another principle. Mercantile capital was as abundant, and mercantile credit as high, as in any other nation. Theſe obſervations ſeem to lead to a concluſion which would call for mature examination.

dit, might properly ſay of the Revolution, " it ſcotched the ſnake, not killed it." To the general matter in the remainder of the chapter, we ſhall have occaſion to ſpeak further, in our review of Mr. Thornton's late publication.

The fifth chapter is on the reformation of paper currency; and, to effect this, Mr. W. propoſes that the country banks ſhould not be ſuffered to iſſue notes after a certain period; but that the vacuity thus ariſing in the national currency ſhould be ſupplied by an enlarged emiſſion of paper from the Bank of England, until it ſhall be capable of ſupplying coin, enabling that company to call in its additional notes. That is, that the Bank ſhall ultimately fill up the vacuity ariſing from the ſuppreſſion of the country notes with coin: an expenſive operation to them, terminating in a decreaſe of their preſent annual profit, ariſing from that part of their notes iſſued to ſupport the circulation of thoſe of the country at its preſent extent; which, though while they make payment in caſh, it expoſes them to ſome difficulties, and even loſſes by coinage, yet is on the balance profitable. He prefaces this part by an inquiry into the cauſe of the increaſe of paper-money, which he aſcribes principally to the increaſe of the public revenue. This we may admit to have been a concurring, but not a principal or neceſſary cauſe of the augment: for paper credit may increaſe with rapidity, in periods in which the revenue of the ſtate is greatly reduced. The Commonwealth annually raiſed 4,385,000l.—in the reign of Charles II. the ſum raiſed was no more than 1,081,000l. excluſive of occaſional grants*;—and in that of James II. 2,001,000l. It has been ſhown in this article, to what a length the paper currency was carried in that term; it excited the wonder of Mr. Locke, who informs us, that on the inſolvency of one goldſmith, it was found that his notes in circulation amounted to 1,100,000l. Many other things are laid down in this chapter, from which we muſt withhold our concurrence, without ſpecific proofs. Yet ſome readers will not be able to repreſs their wonder, that when Mr. W. here ſpeaks of the two effects of every tax on a commodity to raiſe prices, the direct, to augment that of the commodity itſelf, and the circuitous, increaſing that of other commodities, he ſhould mention the ſecond as almoſt firſt noticed by himſelf. The opinions and the exaggerations of Sir Matthew Decker on this ſubject are well known; and Poſtlethwayt has tranſcribed them in his Dictionary. If he had turned to the Appendix of Sir J. Sinclair's Hiſtory of the Revenue, a work from which he quotes, he would have avoided this error.

* Sir J. Sinclair's Hiſt. p. 1, p. 177, &c.

Mr.

Mr. Wheatley's ſixth, and laſt chapter, is "on the reduction of the national debt by the depreſſion of money;" a diſcuſſion of the firſt conſequence, and which will be here conſidered with an attention as little unequal to it, as the plan of a work like this will permit. In his Introduction to this, he ſays, that "although the depreciation was known to exiſt, all authors reaſoned as if the * ſtandard of money were invariable; and regarding every augmentation [of the debt] immediate or remote, as a permanent addition at the exiſting ſtandard;" or that the burthen of a debt was at all times proportioned to its numerical amount. "They imagined the period was not far diſtant, when no further accumulation could be borne;" and he intimates that no application of the known fact of the gradual fall of the value of money had been made, to demonſtrate the fallacy of this popular error. In both theſe particulars he has committed an hiſtorical overſight; for this mode of application of the fact, of the depreciation of the value of money, is not new, as he ſuppoſes it; and we find it uſed ſo early as the year 1776. In the Appendix of a tract lying before us†, it was made uſe of to prove the fallacy of Dr. Price's deductions from the augmentation of the debt; and, from a rate of decrement there aſſigned from the prices of ſome of the primary neceſſaries, it is ſhown to follow, that the burthen of the debt had not increaſed from the peace of Utrecht to that time; and that there was no more ground to fear a bankruptcy at the termination of that period, than at the beginning. Mr. Chalmers alſo in his eſtimate, quoted by Mr. Wheatley, applied the ſame table in 1802, to ſhow the progreſſive deficiency of the civil liſt.

We concur fully with this writer, that the cheaper money becomes in a ſtate, the greater ſums can be paid by the inhabitants in taxes; and that this has been one great cauſe of diminiſhing the burthen which muſt otherwiſe have attended them in this country. We allow alſo, that even a great increaſe of their

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* Throughout this chapter he uſes ſtandard for value of money; although the former is a mint term, ſignifying the weight and fineneſs of a coin.

† Obſervations on, &c. Mr. Gilbert's Bill, by the Rev. Mr. Brand, 1776, where the rate is determined from the quantity of commodities of the firſt neceſſity conſumed in kind, by 22 perſons in eight weeks, from public accounts, and a table of their prices for 17 years of great detail, laid before Parliament, from which both a decrement and a law of decrement of the value of money appeared to take place. But, though a reduction was made in that rate for application, we conſider the reduced meaſure as much too great.

numerical

numerical amount or charge, taking place in a long period, may have been followed with no increaſe of burthen at all. But he has not brought forward all the cauſes which may enable a ſtate to bear increaſed charges, at different ſucceſſive periods, with equal facility. The increaſe of population during the laſt century ought to have been taken into account; and we regard the conſideration of that circumſtance as of ſo much moment in that important and numerous claſs of queſtions, in which national charge and national ability come to be compared, that even no ſufficient approximation to a juſt reſolution of any of them can be attained without it. Something, therefore, ſhall be here ſaid, on the mode in which the variation of population operates on the preſſure of public burthens, both ſimply and combined with the variation in the value of money; and one practical expoſition of its uſe ſhall be added, out of the indefinite number of thoſe great inquiries to which it is equally applicable, that is, of the point here conſidered by Mr. Wheatley, how far our increaſing debt has been an increaſing burthen? There are occaſions in which the laws of reviewing ought not to reſtrain a writer from ſtating his own opinions with ſufficient explanation, in oppoſition to thoſe of the author whoſe work is conſidered; or to carry the latter further in a new courſe, through a region which he does not know to have been before explored.

To determine the effect of the decrement of the value of money, and the increaſe of population on the burthen of taxes, at all times, the value of money is firſt to be taken as conſtant, together with the quantity of commodities conſumed by the individual on an average in any country. The value of this ſet of commodities, at their fixed rates, is what King and Davenant call the yearly expence of the people per head, which, multiplied by the number of the people, will give the national expence. Let a tax of two ſhillings in the pound be laid on that great total, producing a determinate ſum. Suppoſe now the population of ſuch a ſtate to have been at an aſſigned time five millions, let it in a following period be increaſed to ſeven and a half, the prices of commodities, the conſumption of each individual, and the total ſum collected remaining the ſame; the charge on every ſingle perſon, which was before meaſured by one tenth of his income, ſhall now be reduced in the proportion of five to ſeven and a half, or ten to fifteen; the meaſure becoming one fifteenth, or 1s. 4d. in the pound only. If the population had become ten millions, the charge and burthen would each have been reduced to half its former amount, or to one twentieth, that is, to a ſhilling in the pound; therefore the amount of a tax, or aggregate

ſyſtem

ſyſtem of taxes, the conſumption of the people per head, and the price of commodities remaining conſtant, the burthen or charge in the pound will be reciprocally as the number of the people; and their expence per head continuing the ſame, if the population of ſuch a ſtate, after having been initially as 100, ſhall in the lapſe of certain periods have ſucceſſively become as 110, 120, &c. &c. and ultimately as 169; that is, ſhall have increaſed in the proportion of the population of England from 1688 to 1800*; the burthen of the tax having been at firſt reciprocally as 100, ſhall become at the end of the firſt, ſecond, and laſt periods, reciprocally as 110, 120, and 169, reſpectively; the commodities conſumed by equal

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* We may from theſe elements determine the ratio of population in any two years, between 1688 and 1800. For the yearly births and deaths in a ſtate being here taken, upon the average, to bear reſpectively a fixed proportion to the whole exiſting population, which is the conſtant aſſumption, their difference ſhall bear a fixed proportion to the whole population likewiſe; or it will be augmented by a conſtant rate per cent. or in ſucceſſive years, form a ſeries of geometrical progreſſionals: and our population having increaſed in the laſt 112 years in the proportion of 1·69 to unity, its annual increment was 47, 100dths per cent. and between the years 1700 and 1800, it had increaſed in the proportion of 1·5983 to unity. Therefore, had the value of money continued conſtantly equal, one pound would have been raiſed in the more populous period, 1800, with the ſame facility as 0·6256l. or 12s. 6d. in the leſs, the year 1700: or inverſely, 1·5983l. or 1l. 11s. 5¼d. raiſed in 1800, would not have exceeded in burthen one pound raiſed in 1700. Each of theſe forms of ſtating the proportion has its ſeparate uſe; if it be inquired what payment in the year 1700 was equal in burthen to a charge of one million incurred in 1800, recourſe is to be had to the firſt form; the ſum is to be multiplied by 0·6256, the reciprocal of 1·5983, the product is 625,600l. the ſum required; ſuch multiplication by its reciprocal, being the ſame as an actual diviſion by 1·5983, and the eaſier operation; and if we want converſely to inquire, what payment in the year 1800, was equal to one million in 1700? We muſt divide the ſum by 0·6256, and the quotient will be 1,598,300l. or, which is the ſame thing, we muſt multiply it by its reciprocal 1·5983.

The annual increment of population being 0·47 per cent. in every ſucceſſive twenty years, it will be increaſed in the proportion of 1·0983 to unity; and taking the meaſure of population in 1800 as unity, that of every twentieth year in the century may be obtained by diviſions, or by continued multiplications of unity by 0·9104, the reciprocal of 1·0983, as in the ſecond column of the ſecond following Table; and the five correſponding reciprocals, or the terms of the ſecond column of the ſecond Table, will be found by the continued multiplication of unity by 1·0983, repeated four times.

numbers

numbers of people in the different periods being taken to remain the ſame in kind and quantities, and their prices conſtantly equal.

If the population and amount of the taxes be taken as conſtant, and the prices of commodities to vary; the burthen or charge in the pound will be at all times reciprocally as thoſe prices, or directly as the value of money; increaſing with its augmentation, and decreaſing as it falls; (one of the principles upon which Mr. W. rightly proceeds:) and, thirdly, if the value of money and population remain fixed, this burthen or charge in the pound will be as the amount of the taxes, which is univerſally admitted.

Hence it follows, that however the amount of the taxes, the price of commodities, and the population of a ſtate may vary, the burthen of the taxes will be as their amount directly; and the number of the people, compounded with the price of commodities inverſely. This follows from the nature of proportionals.

A numerical illuſtration ſhall now be given of this rule, to determine the effect of the increaſe of population and prices conjointly, upon the burthen of the taxes. It has been ſhown above*, that on account of the increaſe of the number of contributors, the ſtate could collect one pound in the year 1800, with the ſame burthen upon them as 0·6256l. or 12s. 6d. in 1700. Moreover, on account of the fall of the value of money, ſeparately taken, the burthen of the payment of 562l. at the end of the century, having been no more than that of 238l. at that of the preceding, by Sir G. S. Evelyn's Table, as given by Mr. W. one pound was paid in 1800, with the ſame facility as 0·4234l. or 8s. 5½d. in 1700, and conſequently 0·6256l. or 12s. 6d. in the more recent period, with the ſame facility as 0·2649l. or 5s. 3½d. in the more remote; therefore the payment of twenty ſhillings by the nation at one period, was attended with no more burthen than that of 5s. 3½d. at the other. Or a million might have been raiſed upon the ſubject in the laſt year of the 18th century, with as little burthen as 264,900l. at the end of the preceding; and converſely, 3,774,000l. in 1800, as 1,000,000l. in 1700; and here the fraction, 0·2649l. is the product of 0·6256l. and 0·4234l.—and 3·774l. is the reciprocal thereof: and having given the amount of any payment to the ſtate in the years 1700 or 1800, that of a charge of equal burthen at the other may be found in one of the following Tables, as alſo for all intermediate years.

* See the note to the preceding page.

TABLE

TABLE I.

Sums levied in Taxes in certain Years, equal in Burthen to £.1, so levied in Year 1800.

Payment 1800 Years.	£.1, or 20s. increasing, fixed	Col. 1, £.1. Prices Population.	s.	d.	Col. 1, £.1. Population Prices.	s.	d.		Col. 1 & Col. 2 increasing both.	s.	d.
1700		0·4234	8	5½	0·6256	12	6	Equal National Burthen in Years.	0·2649	5	3½
1720		0·4572	9	1½	0·6871	13	8¼		0·3142	6	3¼
1740		0·5106	10	2½	0·7547	15	1		0·3854	7	8¼
1760		0·6085	12	2	0·8289	16	6¼		0·5044	10	1
1780		0·7597	15	2¼	0·9104	18	2¼		0·6917	13	10
1800		1·0000	20	0	1·0000	20	0		1·0000	20	0

TABLE II.

Sums levied in 1800, equal in Burthen to £.1, raised in certain Years.

Paymt. 1700 Years.	£.1, or 20s. increasing fixed	Col. 1, £.1. Prices, Population.	£.	s.	d.	Col. 1, £.1. Population Prices.	£.	s.	d.	Col. 1 & Col. 2 increasing both.	£.	s.	d.
1700		2·3613	2	7	2½	1·5983	1	11	11½	3·7743	3	15	5¼
1720		2·1866	2	3	8¼	1·4552	1	9	1	3·1823	3	3	7¼
1740		1·9581	1	19	1¼	1·3249	1	6	5¼	2·5945	2	11	10½
1760		1·6432	1	12	10¼	1·2063	1	4	1½	1·9823	1	19	7½
1780		1·3161	1	6	3¼	1·0983	1	1	11½	1·4456	1	8	10¼
1800		1·0000	1	0	0	1·0000	1	0	0	1·0000	1	0	0

The fractional and money values, in the first section of the first table, are the same as those determined by Mr. Wheatley, p. 247, and are a series of sums equal in burthen on each individual, to the payment of 20 shillings in 1800, population being taken as fixed: the fractional and money values of the second section exhibit a corresponding series of the same values, prices of commodities being constant, and population increasing: the terms of the third fractional column are the products of those of the first and second in the same line, followed by the money values of them. The first, second, and third fractional columns of the second table are the reciprocals of those of the first respectively*.

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* On the construction of the table of the successive values of money for the last century, adopted from Mr. W. here, the following observations may be made.

There are two modes in which that value can be determined for any series of years: the first is, by dividing the national expenditure by the number of people in each year; the quotients will be, a series of sums proportional to the mean prices of commodities, or the reciprocals of the successive values of money. One such quotient, for the year 1688, Mr. King exhibited: if the process whereby he determined

The application of theſe tables ſhall now be ſhown, to one of the numerous caſes determined by Mr. Wheatley from his own tables, retaining his numbers. He ſtates the revenue in 1800 at 30 millions; the multiplier to this, in the laſt ſection of the ſecond table, is unity: the revenue in 1700 he ſtates in round numbers at 4 millions; the tabular multiplier to which is 3·7743, and the product 15,097,200l. A payment, therefore, of 4 millions, at the more remote period, was equal in burthen to 15,097,200l. at the nearer, or the burthen of the ſtate was nearly doubled: and here Mr. W. regarding increaſe of prices only, and omitting that of population, takes the multiplier for 1700 from the firſt column, where we find 2·3613; by which, multiplying 4 millions, we have 9,445,200 (9,400,000 W.); but, in the payments of each period, and particularly the latter, there is an error in his ſtatement of the revenue; and the correcter reſult will be, that the burthen increaſed in the century by 76·73l. per cent. Again, if a ſimilar compariſon were inſtituted between the onus of the taxes of 1700 and 1790, the latter will be found to exceed the former by 15·45l. per cent. only. The two laſt reſults will

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termined the expenditure be juſt, and it could be recovered, the whole progreſſion would be eaſily determined.

The ſecond is thus: let a liſt of the different commodities ordinarily conſumed by a perſon of the middle rank of life be made out; and the quantity of each requiſite to the conſumption of a given number of ſuch individuals for a given time be aſſigned; the aggregate price of this ſet of commodities for any one year will be reciprocally as the value of money for that year; but all the prices would be better taken from the average of a ſufficient term of years. It muſt be noted, that different commodities have varied in price with different celerities, whence the proportion of each conſumed muſt be taken into account; the average charge of maintaining one man for one year being the point ſought. The mean variation of price of all the enumerated commodities will give a falſe reſult, reſting on the tacit aſſumption, that the expence incurred in the year for each is equal.

The mode in which Sir G. Evelyn has proceeded to determine the ſeries of prices given by Mr. W. is not explained by him. It is ſuppoſed here to be by the valuation of a ſet of commodities, each of the proportional quantity above deſcribed.

After theſe two rules, reſting on one common principle, it is proper to note, that Dr. A. Smith has affirmed, that corn is "a more accurate meaſure of the value of money than any other commodity *or ſet of commodities.*" Book i. chap. 11, 8vo. 1774, vol. i. p. 293.

The laſt part of the returns of the enumeration of the people, in 1800, may confirm or correct the ſeries repreſenting the increaſe of population given here on the common aſſumption.

be explained in a note below*, where the importance of the ſubject has occaſioned ſome further exemplifications to be given of the uſe of the tables.

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* Mr. M'Arthur ſtates the revenue of 1700 at 3,769,300l. (p. 24) and its permanent and temporary amount jointly in 1800 at 36,728,000l. (p. 25). The former is the income from England alone, the latter contains that of Scotland, which muſt be ſeparated from it when the increaſe of the burthen of England is enquired after. This is here taken at 1,833,330l, that of 1789 having been 1,100,000l. (Sinclair, part 3, p. 351) and muſt be deducted—2dly, the former income tax is alſo included in the total at 7 millions. By funding the capital it was pledged to pay, the revenue was very ſoon reduced by about 4,480,000l. and it is only the reſting part of the charge which muſt enter the great total; and, 3dly, the point enquired after is, the ratio of increaſe of expence abſolutely ſuch; money raiſed for neceſſary public expenditure. From this great total, therefore, money raiſed for a beneficial and lucrative purchaſe ought to be excluded; it is a levy diſſimilar in kind, and cannot be mixed with the former: the ſinking fund comes under this deſcription; and its amount in 1800 is taken at 5,270,000l. Theſe three articles together form a ſubtrahend of 11,583,333l. and the levy upon England, for expenditure in 1800, is to be taken at 25,144,000l. Now the annual charge in 1800, equal in burthen to 3,769,000l. will be equal to that ſum multiplied by 3·7743, or 14,233,000l.; which is to 25,144,000l. as 100l. to 176·73.

Again, the arithmetical mean of the factors in the third column of ſecond table, for 1800 and 1780, is 1·2228, an approximation to that of 1790: dividing 14,233,000l. by that mean, the charge in 1800, equal in burthen to the whole revenue in 1700, becomes 11,634,000l. In that year, Mr. M'Arthur ſtates the total revenue at 15,732,000l.; which, deducting as above, 1,100,000l. for that of Scotland, and 1,200,000l. for the ſinking fund, is reduced to 13,432,000l.; the ratio of which to 11,634,000l.; or the proportion of the burthen of 1790 to that of 1700 is the ſame as that of 115·45l. to 100l.

The conſequences to be drawn from tables conſtructed as above are extremely extenſive; by ſuch means, we are enabled to decide, on demonſtrative grounds, the much debated queſtion of the ſufficiency or inſufficiency of the civil liſt; its amount having been, at the demiſe of George II. in 1760, 860,000l.; it was voluntarily reduced, by the preſent King, on his acceſſion, to 800,000l.: that is, it was determined by Parliament, that the ſervices and commodities then to be procured by that ſum were neceſſary for the ſupport of the dignity of the throne, if England ſhould not become more rich and populous. In the forty years elapſed to 1800, the money that would have repreſented the ſervices and commodities here taken on that great authority, as neceſſary to the proper maintenance of that dignity, would have exceeded the original ſum 800,000l. in the ratio of 1·6432 to unity, or amounted to 1,314,560l.

The principles of the compariſon of national burthens and national charges deſerve, and will undoubtedly receive, a more thorough

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But a kingdom, when aggrandized, requires a more ample royal eſtabliſhment than before, and in ſome proportion of that aggrandizement; and a kingdom, by internal additions to its population, acquires more real ſtrength and dignity than if the ſame addition had ariſen by newly acquired provinces. The aggrandizement of the term was therefore as the increaſe of population, or in the ratio of 1·2063 to unity; whence, the due amount of the civil liſt in 1760 having been 800,000l. it ought, ſo early as the year 1800, to have been increaſed in the compound ratio of 1·6432 and 1·2063 conjointly, on account of the decrement of the value of money, and the augmentation of the ſtate, of the beſt kind, or in the ratio of 1·9823 to unity, and to have amounted to 1,585,840l. This is the ſum neceſſary, that the ſplendor of the throne ſhould bear the ſame proportion to the greatneſs of the people that it did in 1760. The unhappy Louis XVI. voluntarily made the melancholy experiment, if not of abdicating the pomp, and what the French called the repreſentation of royalty, at leaſt of greatly reducing it. The very able ſtateſman who wrote the tract "on the Government and Manners, &c. of France before the Revolution," republiſhed in England by that upright Whig of the old and ſober ſchool, Mr. Baron Maſeres, aſcribes the fall of the ſpirit of veneration for monarchy, in a great meaſure, to that fatal renunciation. The tragedies this aſtoniſhing and dreadful event has produced, we know; and the circuitous effect of them has ſeverely viſited us. A neceſſity, continually increaſing, compels the King of Great Britain daily more and more to diveſt himſelf of the outward and impreſſive ſplendor of royalty. The natural effect of ſuch a dereliction, whether conſtrained or unconſtrained, is the ſame, and we have recently ſeen it; and there is nothing in its being the conſequence of our own error, or the entire abſence of a ſentiment, truly noble when duly exerted, which can keep a ſimilar cataſtrophe from us. Theſe reflections, the illuſtration of the table and the ſubject forcibly introduce, although political morality is not the direct ſubject of conſideration here. To return, therefore, to political arithmetic: we may likewiſe from the table determine, whether the grant of 800,000l. for the civil liſt, at the acceſſion in 1760, was not a profuſion condemned by the laudable œconomy of our anceſtors. It appears by the table, that an annual payment of 3·7151l. (=3·7743—·0592) in 1760 was no more than equal in burthen to 1·9823l. in 1700; which meaſures are in the ratio of 1·8741 and unity reſpectively. In 1702, 700,000l. was voted to Queen Anne for the civil liſt; that ſum, therefore, was in that year the ſame burthen as 1,311,870l. in 1760, when 800,000l. was ſettled on the preſent King for the ſame purpoſes. The Queen, indeed, contributed 100,000l. a year to the war; but the ſum ſhe effectively received, 600,000l, was equal in burthen to 1,124,460l, at the acceſſion. On the ſame principle depends the proviſion to be made for all thoſe greater perſonages in the ſtate, whoſe

thorough diſcuſſion than we have been able to give them here, or than they appear to have received from Mr. W. In his elementary table of the ſeries of prices for a century, the firſt, third, and all the alternate terms, evidently ſeem derived from original computations; and the ſecond, fourth, and all thoſe intermediate to the former, from the arithmetical means of thoſe preceding and following them. But another mode, well known to calculators, ought, on elements of ſuch conſequence, to have been employed to ſupply the values of the intermediate decennial periods; when terms however have been, in the courſe of theſe ſtrictures, wanted to be interpoſed between given years, it has not been thought neceſſary to have recourſe to thoſe more operoſe proceſſes. But to form the Tables given above, the even alternate terms, that is, the fourth, ſixth, &c. of Mr. W. are ſtruck out, as leſs to be relied on. His tables, pp. 240 and 242, are meant to ſhow the increaſe of the revenue, in every ten years in the laſt century; and here we ſee four terms put in of pure imagination, and its augment in every ten years from 1710 to 1750, taken to have been equal, whether they were periods of war, of peace, or mixed. Again, the debt contracted in the firſt five years of the war of 1756, he ſtates at ſixteen millions, and in the laſt two at thirty-eight millions. "Extremely looſe," as he ſays, "theſe calculations muſt indeed be admitted to be; what "documents already publiſhed" will juſtify the data he has laid down, we know not; nor do we think that if he had "endeavoured to prepare a more accurate ſtatement," he would "have committed greater errors." Much licence, it is true, will be given to aſſumptions, in proceſſes for the illuſtration of a principle; but they muſt be formed, as far as is convenient, ad veritatem imitandam, and not be made utterly repugnant to the well known facts on the ſubject.

From his data Mr. W. concludes, very juſtly, that the pound ſterling had been reduced in value, from 1780 to 1800, in the proportion of 15s. 2¼d. to 20s. or one fourth, nearly. But from this he infers, that continuing to decreaſe at the ſame rate

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dignity is combined with that of the nation itſelf. In 1742, 100,000l. a year was ſettled by Parliament upon the Prince of Wales: if that ſum was then properly aſſigned, a ſum exceeding it in the proportion of (2·5945—0·0612) 2·5333l. to unity, or 253,333l. is required at this preſent: the allowance to ambaſſadors follows the ſame rule. But the ſtipend of all offices paid by the ſtate, the number of perſons exerciſing them increaſing with that of the people, ſhould increaſe only as the price of commodities, and are determinable by the firſt columns of the tables.

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for three more ſuch periods, it will, at the end of the firſt, or in 1820, be further reduced to 10s. of the ſecond, or 1840, to 5s. and in 1860, to a French livre, or 1s. ſterling. On what ground, in this ſeries of reduced values, when he comes to the fourth term, he departs from its proper law of continuation, and ſtates that the pound will retain any value at all, is far from evident. Beſides, the firſt reduction from 20s. to 15s. is of one fourth the preceding value; but the ſecond, from 15s. to 10s. is of one third; the following, from 10s. to 5s. of one half; and the laſt, from 5s. to 1s. of four fifths; and thus he departs from the hypotheſis he began with, that every ſum of money be reduced one fourth in every twenty years; or, which is the ſame thing, every following value be three fourths of the preceding: and, according to his own ſuppoſition, the five terms of his ſeries ſhould have been, firſt, 20s. ſecond, 15s. third, 11s. 3d. fourth, 8s. 5¼d. and the laſt, 6s. 3¾d. which he reduces to 1s.

There is one further conſequence which he draws from his tables of intereſt and capital of debt, at different periods, combined with the augment of price, which appears very erroneous, and which may generate much diſcontent among thoſe of the public creditors who ſhall concur in it; that, by the perpetual diminution of value of the nominally equal payments made by the ſtate to its annuitants, the public "faith is virtually violated," which he conſiders as originally pledged for payments of equal value in every year; and he broadly intimates, that juſtice calls upon us to "make an advance to the intereſt (or annuity of the creditor) commenſurate to the increaſe of prices." P. 259. Proceeding likewiſe on the tacit ſuppoſition, that all the capitals will be paid off at par, he inſiſts upon the hardſhip to the public creditor, in being obliged to receive in full for his original advance, a value ſo far reduced below it, however called by the ſame name.

He here totally omits to make a ſet-off againſt this loſs of ſome conſequence; that is, that the intereſt covenanted to be paid, has always ſomewhat exceeded the cotemporary rate of the market; and the capital granted the advance made, by 10l. 20l. 30l. and even a higher rate per cent. at different periods. But let this conſideration for a time be here alſo ſet out of the queſtion, ſtill his concluſion is utterly unſupportable. The thing borrowed by the ſtate is a monied capital, and this depreciation is an ill quality inherent in its nature; that a capital has been advanced to the ſtate, is not the cauſe of its depreciation; if this decrement of real value would not have taken place upon it, had it been put out to intereſt on any other legal ſecurity, the ſtate might have been bound to make it good; but if it had been in the private cuſtody of the firſt owner and his

his heirs, and hoarded for the whole of the century, it would not have eſcaped this depreſſion. All other equal monied capitals have ſuffered in the ſame degree, in the ſame periods of time, as that of any public creditor; for the funds being at par (the tacit aſſumption of Mr. W.) it follows, from the firſt column of the Tables, that the real value of equal ſums was reduced one half, from the year 1740 to 1800. Now, ſuppoſe that Titius, in the former year, had advanced upon mortgage, on certain lands, 10,000l. at 4l. per cent. and that it continued ſo veſted during the whole period, his income ariſing therefrom, 400l. at the end of the firſt year, would be of twice the value of the like nominal ſum, 400l. which he or his heir would receive at the end of the laſt, 1800; and, if then the principal ſhould be paid in, its value would be found reduced to one half, as it would be diſcharged by the numerical amount advanced only; but as the capital of the debt exceeds the advance of the creditors, taken collectively, at a certain rate per cent. the ſum repaid will exceed the original advance by the ſame rate; and, if not equal in power and value to the latter, loſe leſs, therefore, in the term of forbearance, than a like advance on private credit; and, on the return of aſſured peace, the ſtandard ſtock muſt riſe very ſoon to par, by the effective ſinking fund we poſſeſs.

With all theſe objections to Mr. W.'s work, it muſt be admitted, that there appears in it a genius well turned to theſe ſubjects, a ready invention of principles, which, to thoſe who are new to theſe inquiries, will appear firm; and are beſide fertile in conſequences, and directly leading to them. How far he has duly examined theſe principles, before he employed them as the foundation of his ſuperſtructure; whether he has, with due previous diligence, collected a magazine of materials ſufficiently ample to exerciſe the ability he poſſeſſes; or, whether he is maſter of thoſe branches of computation, without which, writers on political arithmetic may fail of diſcovering many a uſeful deduction, ariſing from well eſtabliſhed principles and authentic elements, are points rather left to be gathered from the preceding copious examination of his tract, than here expreſsly decided upon.

J. B.

ART. V. *Tranſactions of the Linnean Society. Volumes V. and VI.* 4to. White. 1800, 1802.

THE Linnæan, or (as it chooſes to ſpell itſelf) Linnean Society, continues to purſue, with apparently unabated ardour, the ſtudy and improvement of natural hiſtory. Since the period of our laſt review of its Tranſactions, two new volumes have been produced, namely, the fifth and ſixth, both diſtinguiſhed, like the preceding, by many important communications. In the fifth volume is a paper, by the late Dr. Pulteney, containing obſervations on the œconomical uſe of the *Ranunculus aquatilis*, a plant very common, during the early part of ſummer, in moſt of our rivulets and ſtagnant waters. According to Dr. Pulteney, it grows ſo very plentifully in the neighbourhood of Ringwood, on the borders of the Avon, that the cottagers ſuſtain their cows, and even their horſes, almoſt wholly upon it; its acrimonious qualities evaporating entirely on drying. But it is even a highly uſeful fodder when recent; and it is uſual for a man to collect a quantity every morning, and bring it in a boat to the edge of the water, where the cows eat it with great avidity: indeed, they reliſh it ſo highly, that it is thought unſafe to allow them more than a certain quantity, namely, between 25 and 30 pounds each, daily. Dr. P. was informed by one man, that he had kept five cows and one horſe ſo entirely on this plant, and what the heath afforded, that they had not conſumed more than half a ton of hay throughout the whole year. Thus the plant appears to be not only innoxious, but even highly nutritive to cattle. Hogs alſo, when fed on the ſame vegetable, improve ſo much, that it is not neceſſary to give them any other ſuſtenance till they are put up to fatten.

Another article (which is alſo by Dr. Pulteney) informs us, that Aſcarides are found in great plenty in the ſtomach of the corvorant and the ſhag. In the concluding paragraph of this paper, is an obſervation relative to a ſpecies of worm, obſerved by A. B. Lambert, Eſq. cruſhed out of the body of the Carabus hortenſis. This, however, is in reality nothing new; ſince Liſter, Roeſel, and many others, have obſerved Gordii or Filariæ in the bodies of various inſects.

In a paper by Dr. Maton, on the celebrated long graſs, growing at Orcheſton, not far from Saliſbury, Dr. M. is of opinion, that the Orcheſton graſs is not in reality a particular ſpecies; but that, from the extremely rich nature of the ground, all the uſual meadow graſſes which happen to grow in it acquire an uncommon length, as the Holcus lanatus, Lolium perenne, Agroſtis ſtoloniſera, &c. The meadow producing the

the graſs which has excited ſo much curioſity is ſituated in the loweſt part of a very narrow winding valley, ſheltered on each ſide by gradual, but by no means lofty, acclivities of chalk. This valley forms a channel for the frequent floods which come from Tilſhead (about three miles diſtant) in the winter ſeaſon; and, from the meadow alluded to being the loweſt of the range, the water reſts there to ſome depth, if it does any where; and indeed the place is rarely otherwiſe than ſwampy throughout the year.

The next article is a Deſcription of a new Species of Mycteria or Jabiru, by Dr. Shaw. It is a native of Senegal, and is thus diſtinguiſhed. *Mycteria Senegalenſis. M. alba roſtro apicem verſus rubro, baſin verſus albido faſcia nigra, macula utrinque feneſtrata.*

White Jabiru, with the bill red towards the tip, whitiſh towards the baſe, with a black tranſverſe band, and a tranſparent ſpot on each ſide.

In ſize, this bird appears to be equal to the common Jabiru. It is well known to zoologiſts, that this genus has been alſo increaſed by the introduction of an additional ſpecies from New Holland, of which a ſpecific character is inſerted by Dr. Shaw.

A Continuation of the Hiſtory of the Tipula Tritici, in a Letter to Thomas Marſham, Eſq. By Thomas Kirby, F. L. S.

In this paper, Mr. Kirby, with his uſual accuracy, deſcribes the inſect; but the paper is too long for inſertion in our Review, and we can only give the reader its ſpecific character, namely, *Tipula ruſo-fulva, alis lacteo-iricoloribus, margine piloſis.*

An elaborate paper follows, by the ſame author, deſcribing certain Fungi, which are Paraſitics of Wheat.

An Account of the Onchidium, a new Genus of the Claſs of Vermes, found in Bengal. By Francis Buchan, M. D.

This animal is always found (at leaſt it was always obſerved by Dr. Buchan) on the leaves of the Typha elephantina. It is ſo nearly allied to the genus Limax, or Slug, in point of habit, that, by an inattentive obſerver, it might be conſidered as a Limax: its principal difference conſiſts in not being furniſhed with a lateral foramen. It is a native of Bengal.

Obſervations on the Britiſh Species of Mentha. By Dr. Smith, Preſident of the Society.

We

We need ſay nothing more relative to this paper, than that it diſplays the uſual exactneſs and diligence of its ſcientific author. The Britiſh mints now amount to thirteen, excluſive of ſeveral varieties.

Deſcriptions of the Mus burſarius and Tubularia magnifica, from Drawings communicated by Major-General Davies, F. R. S. and L. S. By George Shaw, M. D. &c.

The Mus burſarius is of that diviſion in the genus which is furniſhed with cheek-pouches for the temporary reception of food, and is a native of Canada. The Tubularia magnifica is a highly elegant ſpecies, and is repreſented in a coloured plate.

Many other papers of conſequence occur in the preſent volume; but, as we cannot do juſtice to their contents without a great expanſion of this article, we muſt take our leave of the fifth, and proceed to the ſixth volume.

In this, the firſt article is a very learned and elaborate Diſſertation, by Profeſſor Lichtenſtein, on two natural Genera hitherto confounded under the name of *Mantis*. This paper, which was written in the German language, is tranſlated by Dr. Thomas Young. The diſtinction between the genus *Mantis* and the newly-inſtituted genus *Phaſma* is clear, and well ſupported.

Obſervations on Aphides; chiefly intended to ſhow, that they are the principal Cauſe of Blights in Plants, and the ſole Cauſe of the Honey-Dew. By the late William Curtis, F. L. S.

It is impoſſible to ſpeak too highly in praiſe of this very curious paper; in which, many new and intereſting particulars are detailed, relative to the natural hiſtory and manners of thoſe extraordinary inſects, which Mr. Curtis ſeems to have clearly proved the ſole cauſe of the latter phænomenon mentioned in the title.

Remarks on ſome of the Britiſh Species of Salix. By the Preſident.

Several Britiſh willows are deſcribed in this paper, with all the accuracy which the preſent ſtate of our knowledge reſpecting ſo difficult a tribe will admit. Further obſervations are promiſed.

In this volume we find a well-conducted paper on the Hinges of the Britiſh Shells, by Mr. William Wood, F. L. S. This paper

paper became the more neceſſary, ſince the figures given in the laſt volume of the Amœnitates Academicæ muſt be acknowledged to be, in ſeveral inſtances, more calculated to miſlead than to inſtruct. The figures accompanying Mr. Wood's deſcriptions appear to be very correct.

Dr. Schreibers, Deputy Profeſſor of Natural Hiſtory in the Univerſity of Vienna, has deſcribed ſeveral rare ſpecies of coleopterous inſects. The deſcriptions are accompanied by beautiful coloured figures.

In a ſucceeding article is deſcribed and figured, one of the moſt curious birds yet introduced into our Muſeums, from that land of wonders New Holland. This bird is deſcribed by General Davies, under the name of *Menura ſuperba;* it having been thought neceſſary to inſtitute for it a diſtinct genus, from the particular form and ſtructure of its tail, which is ſo conſtituted, as to bear a ſtriking reſemblance to the floating hypochondrial feathers of the Birds of Paradiſe.

A paper in French, containing Obſervations on ſeveral Species of the Genus Apis, namely, ſuch as are commonly termed Humble-Bees, is the production of Mr. P. Huber of Lauſanne, in Switzerland. This paper contains many curious obſervations, but is too diffuſe: it is accompanied by figures of the inſects themſelves, with their neſts and cells.

We cannot ſtop to enumerate the many curious articles, both zoological and botanical, which occur in the preſent volume; and muſt conclude with ſlightly mentioning an intereſting deſcription, accompanied by a ſplendid coloured plate, of the ſpecies of Palm, called *Cycas revoluta*, which, in the month of November, 1799, produced its fruit, for the firſt time in England, in the garden of the Honourable and Right Reverend the Biſhop of Wincheſter, at Farnham Caſtle, in Surrey. The deſcription is by Dr. Smith, and the plate is engraved from an elegant drawing by the hand of Miſs North. It repreſents as much of the plant as poſſible, ſomewhat under the natural dimenſions; nor could the full number of ſurrounding leaves be conveniently admitted.

We have thus given rather a ſpecimen of the moſt important articles, contained in theſe volumes, than a minute account of the various papers, which would be intereſting to few readers, except thoſe who, even from what we have ſaid, may be induced to procure the volumes. Of theſe it would be injuſtice not to ſay, that they are worthy of the Society from which they proceed.

ART.

ART. VI. *Analytical Inſtitutions, in Four Books: originally written in Italian, by Donna Maria Gaetana Agneſi, Profeſſor of the Mathematics and Philoſophy in the Univerſity of Bologna. Tranſlated into Engliſh, by the late Rev. John Colſon, M. A. F. R. S. and Lucaſian Profeſſor of the Mathematics in the Univerſity of Cambridge. Now firſt printed, from the Tranſlator's Manuſcript, under the Inſpection of the Rev. John Hellins, B. D. F. R. S. &c. In Two Volumes.* 4to. 700 pp. 2l. 2s. Rivingtons, &c. 1801.

THE preſent work, whether we conſider the extent and difficulty of the ſubject, or the ſkill with which it is handled, is ſuch as does not appear once in a century; but, when it is conſidered as the performance of a lady, under the age of twenty-eight years, it is, we believe, unequalled in the hiſtory of the mathematics. It therefore ſhould have been noticed ſooner by us, were it not that we are ſometimes compelled to move ſlowly under the heavy burden laid upon us by this age of authors. Our account of this work, however, has not been ſo long delayed as at firſt ſight might appear; for, although it appears to have been printed off in the year 1801, it was not publiſhed till at leaſt the middle of the year 1802.

The ſubject of theſe volumes is naturally divided into two Parts; the Analyſis of finite Quantities, and the Analyſis of Quantities infinitely ſmall; and theſe Parts, as they are treated of at large, are very properly diſpoſed in two volumes. The firſt volume (of which only we ſhall now make our report) contains, beſides the Analyſis of finite Quantities, an Advertiſement by the editor; a ſhort Account of Maria Agneſi, the author; her Dedication of this work to Maria Tereſa, Empreſs of Germany; her Preface; and an Introduction, by Profeſſor Colſon, the tranſlator. In all which preliminary papers, there are circumſtances reſpecting this work which we ought not to overlook.

The editor's Advertiſement contains a brief account of Mr. Colſon's motive for tranſlating this work into Engliſh; of the ſtate in which the manuſcript was left at his deceaſe (namely, that it was fairly tranſcribed for the preſs, but wanted reviſion, and that the intended Introduction to it was unfiniſhed) and of the part which he has had to perform. It contains alſo his opinion of the work, ſupported by an inſtance of the ſuperior ſkill of Agneſi to Simpſon, in the ſolution of a fluxionary equation; his anſwer to an objection which may be made to theſe Inſtitutions; his idea of ſome additions to be made

made to this work, in order to ſave the learner both the time and expence of conſulting other books on the ſubject; his deſire to obtain authentic intelligence concerning this learned lady from the Univerſity of Bologna, of which ſhe was once ſo illuſtrious a member; and the further information, that the public are indebted to the liberality of Baron Maſeres for the preſent handſome edition of this valuable work.

For a fuller ſtatement of theſe particulars, we muſt refer our readers to the book. We ſhall, however, give a ſhort extract or two from this paper, with our remarks.

The firſt paragraph (in which Profeſſor Colſon's motive for tranſlating this work is mentioned) runs thus:

"The Analytical Inſtitutions of the very learned Italian lady, Maria Gaetana Agneſi, Profeſſor of the Mathematics and Philoſophy in the Univerſity of Bologna, which were publiſhed in two volumes, quarto, in the year 1748, are well known and juſtly valued on the continent; and there cannot perhaps be a better recommendation of them in this iſland, than that they were tranſlated into Engliſh by that eminent judge of mathematical learning, the late Reverend John Colſon, M. A. F. R. S. and Lucaſian Profeſſor of the Mathematics in the Univerſity of Cambridge. That learned and ingenious man, who had obliged his country with an Engliſh tranſlation of Sir Iſaac Newton's Fluxions, together with a comment on that profound work, in the year 1736, and was well acquainted with what appeared on the ſame ſubject in the courſe of fourteen years afterwards, in the writings of thoſe very ingenious men, Emerſon, Mac Laurin, and Simpſon,—found, after all, the Analytical Inſtitutions of Agneſi to be ſo excellent, that he was at the pains of learning the Italian language, at an advanced age; for the ſole purpoſe of tranſlating that work into Engliſh, that the Britiſh youth might have the benefit of it as well as the youth of Italy."

This may be uſeful information to many of our readers. We well know that Profeſſor Colſon was not only an eminent mathematician, but alſo a very clear writer, and an experienced teacher: his recommendation, therefore, of any work of this kind, is as good as can be given.

The editor's wiſh (and the cauſe which excited it) to obtain authentic intelligence of Agneſi from the Univerſity of Bologna, is deſcribed as follows.

"The wonderful ſagacity which appears in theſe Inſtitutions, and the ſingular circumſtance that ſo large a work of this kind was performed by a lady, raiſed in me a wiſh to obtain a particular account of the author; but the confuſion and miſery which have been brought upon a great part of Europe, and particularly upon Italy, by the French Revolution, have deprived me of the means of getting authentic information reſpecting this *phænomenon* of literature from the Univerſity of Bologna, of which ſhe was ſo bright an ornament." P. xi.

This was written about the end of the laſt war. The proſpect which the peace of 1801 opened, of obtaining the deſired intelligence from Bologna, is, by the ambition and reſtleſs ſpirit of France, again cloſed.

The editor adds,

"All the information I have been able to get of her (beſides what appears in her excellent work, and ſome juſt encomiums on her ſkill, which I have ſeen in foreign books) I have inſerted in the following pages; ſuppoſing that the reader would be no leſs deſirous than myſelf of any authentic information reſpecting ſo amiable and extraordinary a perſon. The account comes, indeed, by way of France; yet, as there is no viſible motive for the writers of it to deviate from truth in what they have related of her, I ſee no reaſon for diſbelieving it." Ibid.

The ſhort Account of Maria Agneſi conſiſts of extracts (tranſlated into Engliſh by Baron Maſeres) from M. De Broſſes' Letters on Italy, M. Montucla's Hiſtory of the Mathematics, and a work entitled "El Theatro Critico." It is here related upon the teſtimony of M. De Broſſes*, a learned Frenchman, who ſaw and converſed with Maria Agneſi, when ſhe was about twenty years of age, that ſhe had then not only acquired ſuch a knowledge of the Latin tongue as to be able to converſe, and even to diſpute in it, on learned ſubjects, with great fluency and propriety; but was well acquainted alſo with the Oriental languages, and with the Newtonian philoſophy. Such acquiſitions at ſo early an age are a ſtrong proof of very extraordinary natural endowments; and leſſen our ſurpriſe, that a perſon of her ſex ſhould be made a Profeſſor of the Mathematics and Philoſophy in an Univerſity.

M. De Broſſes' account of what paſſed at a *converſatione*, at which he was introduced to La Signorina Agneſi, by Count Belloni, is curious, and will be very gratifying to all lovers of the mathematics and philoſophy; but our limits will not allow us to inſert it here.

The Dedication of this work to the Empreſs of Germany ſhows how well Agneſi could write on other ſubjects as well as on the mathematics; and affords us this further information reſpecting her family, that ſhe had a ſiſter eminently ſkilled in muſic.

By the Preface, which is ſhort, and written with that unaſſuming air which never accompanies ſcioliſts, we find, that Agneſi was aſſiſted in her ſtudy of the mathematics by an able

* M. De Broſſes was firſt Preſident of the Parliament of Dijon, and Member of the Royal Academy of Inſcriptions and Belles Lettres at Paris.

Profeſſor of thoſe ſciences; that ſhe was well acquainted with the works of various authors, and particularly with the Leipſic Acts, the Memoirs of the Royal Academy of Sciences at Paris, and the Tranſactions of other learned ſocieties, and, more eſpecially, with the excellent ſyſtem of analytics publiſhed by Father Renau, entitled L' Analyſe Demontrée, which had long been conſidered as the claſſical book all over the continent. But as many important and uſeful diſcoveries had been made in thoſe ſciences ſince the publication of that celebrated work, ſhe was therefore perſuaded, that "to ſave the ſtudents the trouble of ſeeking for theſe improvements, and newly-invented methods, in their ſeveral authors, a new digeſt of analytical principles might be uſeful and acceptable." Her next words are,

"The late diſcoveries have obliged me to follow a new arrangement of the ſeveral parts; and whoever has attempted any thing of this kind, muſt be convinced how difficult it is to hit upon ſuch a method as ſhall have a ſufficient degree of perſpicuity and ſimplicity, omitting every thing ſuperfluous, and yet retaining all that is uſeful and neceſſary; ſuch, in ſhort, as ſhall proceed in that natural order, in which conſiſt the cloſeſt connection, the ſtrongeſt conviction, and the eaſieſt inſtruction. This natural order I have always had in view; but whether I have always been ſo happy as to attain it, muſt be left to the judgment of others." P. xxii.

No candid judge of theſe matters will deny, that Agneſi has been very happy in the arrangement of her materials.

In the next paragraph ſhe ſays, "in the management of various methods, I think I may venture to ſay, that I have made ſome improvements in ſeveral of them, which I believe will not be quite devoid of novelty and invention." P. xxiii.

That there are ſeveral uſeful rules and obſervations in this work, which we find not in any book written prior to it, nor in any other book that has hitherto appeared in the Engliſh language, we readily allow.

She then makes a handſome acknowledgment to Count James Riccati, for a new method of finding the fluents of fluxionary fractions whoſe denominators are multinomials, which he had communicated to her, and which ſhe has inſerted in the ſecond volume of theſe Inſtitutions; and concludes her Preface, in the ſame modeſt manner in which the reſt of it is written, with giving her reaſons for not tranſlating this work into Latin, which was originally written in Italian, for the inſtruction of one of her younger brothers, who alſo had a turn for mathematical ſtudies.

The Introduction and Plan of what Mr. Colſon calls the Lady's Syſtem of Analytics conſiſt of 46 pages. The following extract, from

from the beginning of the Introduction, contains information which we think it our duty to communicate to our readers.

Profeſſor Colſon ſays,

"That we ſhould receive from Italy, the Mother of Arts, a complete ſyſtem of analytics, is not ſo much to be wondered at, knowing we have often had from that quarter very excellent productions in the ſublimer mathematics; but, that we ſhould receive ſuch a preſent from the hands of a lady; from that ſex which, however capable, yet hardly ever amuſe themſelves with theſe ſeverer ſtudies, is, indeed, very wonderful and ſurpriſing; yet ſo it is, in fact: a very learned, ingenious, and celebrated lady of Milan, by name Donna Maria Gaetana Agneſi, a member of the Univerſity of Bologna, and lately advanced by the Pope to a Profeſſorſhip in Mathematics and Philoſophy in the ſame Univerſity, has publiſhed a treatiſe in Italian, in two volumes, 4to. which ſhe calls Analytical Inſtitutions, for the Uſe of the Youth of Italy, of which ſhe was pleaſed to preſent a copy to the Royal Society of London. This copy I had the curioſity to inſpect; and thought it might be a proper way of returning the author's compliment, to have an account of the work drawn up and read to the Society, and perhaps printed in the Philoſophical Tranſactions, as has often been the practice on ſuch occaſions. This account, therefore, I undertook to draw up, having the conſent and approbation of our worthy Preſident; but, when I came to look into the work more cloſely, I ſoon enlarged my ſcheme; and, inſtead of barely taking the plan, or giving an account of it, I thought it highly deſerved to be tranſlated into our own language, that the youth of England might likewiſe enjoy the benefit of it. I confeſs I alſo entertained ſome diſtant hopes, that it might excite the curioſity of ſome of our Engliſh ladies; that it might raiſe an emulation in them, a laudable ambition to promote the glory of their country, with a generous reſolution not to be outdone by any foreign ladies whatever. They want no genius or capacity for the ſciences, and have undoubtedly as good abilities as the ladies of Italy. They ſeem only to want to be properly introduced into theſe ſtudies, to be convinced of their uſefulneſs and agreeableneſs, and to prevail on themſelves to uſe the neceſſary application and perſeverance. They have here a noble inſtance before them, of what the ſex is capable to perform, when their faculties are exerted the right way: and they may be fully perſuaded, that what one lady is able to write, other ladies are able to imitate, or at leaſt to read and underſtand. With not much more pains and induſtry than what they muſt be at to be expert at whiſt or quadrille, they may become miſtreſſes of this ſcience, which they will find to be much more innocent, more diverting and agreeable, and to have infinitely more amuſing variety than thoſe, or any other games whatever." P. i.

In the Plan of the lady's ſyſtem of analytics, a popular account is given of every ſection and article of the firſt Book, which will be uſeful to thoſe who are entering on the ſtudy of algebra and the higher geometry. Profeſſor Colſon intended to continue this account to the end of the work; but the editor,

tor, who has added what was wanting to complete it to the end of the firſt volume, chooſes rather (in conſequence, no doubt, of ſome improvements in ſeries which have been made ſince Mr. Colſon's time) to give what he has to offer on the ſecond volume in notes, together with ſome additions, in a Supplement to this work, which he intends to publiſh.

We are now come to the Analyſis of finite Quantities, which is the ſubject of the firſt Book of theſe Inſtitutions. This Book is divided into ſix Sections; of the contents of which, we ſhall give our readers a brief ſtatement, together with ſome ſhort remarks.

Sect. I. *Of the firſt Notions and Operations of the Analyſis of finite Quantities.*

In this ſection, not only the addition, ſubtraction, multiplication, diviſion, and extraction of the roots of integral quantities, but alſo of fractions and ſurds, is explained and illuſtrated by a number of well-choſen examples. Perſpicuity, neatneſs, and good method, which are the characteriſtics of the work, are conſpicuous here; and, although this ſection afforded but little room for the diſplay of genius, yet it appears, both in the ſhort method of diviſion and extraction of roots, and in the method of finding binomial diviſors of compound quantities.

Inſtead of extracts from this ſection, we ſhall, for the ſake of brevity, preſent our readers with what Profeſſor Colſon ſays of the 36th article of it.

"To conclude the doctrine of fractions, the author proceeds to a very curious and uſeful operation, which is, to find the greateſt common diviſor of two quantities or formulas given. Where it may be obſerved, that a formula is a combination of quantities, which may ſerve as a paradigm or pattern for all combinations of the like kind. Then, by a proceſs not unlike that in arithmetic, which is, by ſubtracting one from the other, continually and interchangeably, as often as can be done, the laſt quantity ſo found will be the greateſt common diviſor of the two given quantities. Now, if thoſe two quantities form a fraction, and the numerator and denominator are each divided by the greateſt common diviſor, ſo found, a fraction will thence ariſe, equal to the other, but reduced to the ſmalleſt terms. Of this reduction, ſhe gives us the proceſs at large, in three ſeveral inſtances." P. ix.

Sect. II. *Of Equations, and of Plane Determinate Problems.*

This ſection, like the preceding, is large, and contains a conſiderable quantity of valuable matter, well arranged and clearly

clearly explained. In the former part of it, are the definitions of equation and problem; the notation of known and unknown quantities; the difference between a determinate and an indeterminate problem; the method of forming, reducing, and reſolving equations not exceeding the ſecond degree; the claſſification or arrangement of equations, according to their different degrees; the elimination or extermination of unknown quantities, when ſeveral are uſed in the ſolution of a problem; the uſe of the ambiguous ſign; the riſe and uſe of imaginary quantities; and the geometrical conſtruction of ſimple and quadratic equations, however complicated they may be.

Having thus laid down "the principal rules of the art of computation, whether algebraical or geometrical," the author proceeds "to ſhow their uſe, in the ſolution of ſome particular problems." The number of problems is fifteen, of which ſome are arithmetical, and ſome geometrical. Among them, is the problem for detecting the fraud of the goldſmith who made the crown for King Hiero, well known to the learned, by Archimedes's exclamation, Εὕρηκα.

"The author gives us here [alſo] a very notable geometrical problem, which is, two contiguous arches of a circle being given, and alſo their tangents, to find the tangent of their ſum: and this ſhe extends very artfully to the ſolution of a much higher and more general problem, which is, any number of arches and their tangents being given, to find the tangent of their ſum. By the way, ſhe gives us a general theorem for finding all the poſſible combinations of any number of quantities given. She concludes with giving a general canon or formula, for finding the tangent of any multiple or ſubmultiple arch; as alſo, ſhows the converſe of this *problem*.*" P. xviii.

"The laſt problem is that famous geometrical one, of triſecting a given angle. This ſhe divides into three caſes, according as the given angle is right, obtuſe, or acute. The firſt caſe ſhe ſolves by a ſimple quadratic equation, of which ſhe alſo gives us the conſtruction. The ſecond and third caſes ariſe to cubic equations, which ſhe reſerves till ſhe comes to treat of thoſe equations." Ibid.

By this judicious arrangement of her materials, Agneſi ſhows the learner the neceſſity of a further progreſs in this art, and conſequently excites his attention to the compoſition and reſolution of ſuch equations as ariſe in the ſolution of what are commonly called ſolid problems.

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* Not *theorem*, as it is erroneouſly printed. *Rev.*

Sect. III. *Of the Conſtruction of Loci, or Geometrical Places, not exceeding the ſecond Degree.*

The particulars of this ſection are more than can here be ſeparately deſcribed; yet, from our brief account of it, our readers will be able to form an idea of the nature and utility of the matter contained.

Here the nature of variable quantities, and of a geometrical *locus*, is very clearly explained; the *loci* are diſtinguiſhed into different orders, according to the dimenſions of the variable quantities; and a great number of examples, of the conſtruction of equations of the firſt and ſecond degree, of which the *loci* are right lines and conic ſections, are given; among which, are ſome that ſhow the management of very complicated expreſſions. After the conſtructions of theſe equations, in which the author diſplays great ingenuity, ſhe proceeds to ſolve ſeveral geometrical problems, in which the method of finding the equations to curves of the firſt order, which is the converſe of the conſtructions, is fully treated of. Among the ſolutions of theſe problems, ſhe takes occaſion to "explain how we may know which of two complicate quantities is the greater," which knowledge is frequently requiſite in theſe matters. The laſt problem produces an equation to the hyperbola between the aſymptotes, which, as Profeſſor Colſon obſerves, "is very artfully reſolved and conſtructed, by three ſubſtitutions, or changes of the variable quantities." P. xxiii.

At the end of this ſection, ſhe gives a ſpecimen of the method of demonſtrating theſe problems. She ſays,

"we may obſerve here, that the equations expreſſing the properties of the curves deſcribed in theſe examples or problems, ought to be the ſame with the equations propoſed to be conſtructed, when the operations are truly performed, and therefore may ſerve as a demonſtration of the method itſelf. This I have purpoſely omitted to do, to avoid being too prolix." P. 138.

Then follows the ſpecimen, which we omit, as it would be unintelligible without a geometrical figure.

We obſerve, that this ſection is an excellent preparation for the conſtruction of the higher equations, ſuch as ariſe in the ſolution of ſolid problems, and are the main ſubject of the next ſection; and that, by the peruſal of it, thoſe who have but a moderate knowledge of the *conic ſections*, may find that knowledge much enlarged, and they who are well acquainted with the properties of thoſe curves, may ſee them deſcribed by various methods which are not commonly found in books profeſſedly written on that ſubject.

Sect.

Sect. IV. *Of ſolid Problems and their Equations.*

This is the largeſt and moſt important ſection of this book. We ſhall therefore give as full an account of it as our limits will permit.

Here the author very properly begins with the definition of the root of an equation. She ſays,

"any of thoſe quantities is called the root of an equation, which, being ſubſtituted in the equation inſtead of that root or letter, according to which the equation is ordered (or inſtead of that letter which repreſents the unknown quantity) ſhall make all the terms of the equation to vaniſh or become nothing. Or, which is the ſame thing, the root of an equation is each of the ſeveral values of the unknown quantity, or of that letter which performs the office of an unknown quantity in the equation." P. 140.

This is illuſtrated by three examples, of which we ſhall give the two firſt; namely,

"Therefore the roots of the equation $xx - ax + bx - ab = 0$ will be two, one of which is a, the other $-b$; for each of theſe, being ſubſtituted inſtead of x, will make the terms of the equation to vaniſh; or, becauſe either a or $-b$ are the values of the letter x in the propoſed equation. The roots of the equation $x^4 - x^3 - 19x^2 + 49x - 30 = 0$ will be 1, 2, 3, or -5; becauſe any of theſe numbers, being ſubſtituted inſtead of x, will make all the terms to vaniſh, and therefore any one of them is the root or value of the unknown quantity x." Ibid.

But, as ſome eminent authors have defined the roots of equations in a different manner, ſhe gives that definition alſo, with its illuſtration, which is as follows:

"In another ſenſe, thoſe equations are uſed to be taken for the roots of an equation, which are formed by ſubtracting, one by one, the poſitive values from the unknown quantity, or by adding the negative values, and making them equal to nothing. Therefore, in this ſenſe, the roots of the equation $xx - ax + bx - ab = 0$ will be $x - a = 0$, and $x + b = 0$. Thoſe of the equation $x^4 - x^3 - 19x^2 + 49x - 30 = 0$ will be $x - 1 = 0$, $x - 2 = 0$, $x - 3 = 0$, and $x + 5 = 0$: and ſo of others: and in this ſenſe, it is ſaid, that every equation is the product of all its roots; becauſe, being continually multiplied into one another, they will exactly produce the given equation, or that of which they are the roots. Hence it is, that the roots of an equation will be ſo many, including alſo the imaginary roots, as is the degree to which the equation ariſes. And therefore a quadratic equation will have two roots, a cubic equation three roots, a biquadratic four roots, and ſo on." P. 141.

She next ſhows how equations are produced by the multiplication of their roots; and then proceeds to conſider the nature

or formation of the several co-efficients; for which we must refer to the work.

On the affections of the roots of equations, she has these judicious remarks:

"Various rules are given by the writers of algebra, to determine in any given equation the number of positive and negative roots, also of real and imaginary roots. But, because these rules and their demonstrations are very perplexed and prolix, and of but little use, I shall here omit them, thinking it sufficient to take notice, first, that if all the roots be negative, all the terms of the equation will be positive. For, in this case, since all the terms of the simple equations are positive, that is, of all the roots taken in the second sense, from whence the proposed equation is supposed to be produced, all the products will also be positive. Secondly, that if all the roots be positive, the terms of the equation will be positive and negative alternately. For the first term will always be positive by supposition. The second term will be negative, because it contains the sum of all the roots, which being positive, will be negative in the simple equations. The third term, containing the binaries, or products of all the pairs, will be positive: and so on: and therefore an equation composed of positive and negative signs alternately, will have all its roots positive." P. 143.

"Whence, if the terms of an equation shall not have all their signs positive, or shall not have them positive and negative alternately, there will be both positive and negative roots. It shall also be another sure proof, that the equation contains both positive and negative roots, if there be any term wanting; for no term can be absent, but that the products of which it is formed must destroy one another by contrary signs; that is, there must be both affirmative and negative roots. This observation will assist us in its proper place, among the many divisors of the last term of an equation, to select those only by which the division is to be attempted. Because, if the equation shall have only positive roots, it would be of no use to try the division by positive divisors; and if it shall have only negative roots, it would be needless to try by negative divisors: and the trials must be made by each of them, when there are both positive and negative roots." Ibid.

"But all this must be understood of such equations in which all the roots are real; for where there are imaginary roots the rule does not obtain. For example, let the equation be $x^3 + bx^2 + aax + aab = 0$, in which all the terms are positive, and yet the roots are one positive and two negative, that is, $x = -b$, a real root, and $x = \pm\sqrt{-aa}$, two imaginary or impossible roots, one positive, the other negative." Ibid.

The certain mark of impossible roots, in cubic and biquadratic equations wanting the second term, which is given in the next article, is curious and useful, and not commonly found in treatises of algebra; and as the demonstration is neat and short, we shall transcribe it here.

" Equations of the third and fourth degree, in which the ſecond term is wanting, if the third term be affected with the poſitive ſign, will certainly have imaginary roots; for, if all the roots were real, the third term could not but be affected with the negative ſign; the reaſon of which is, that in cubic equations, when the ſecond term is wanting, the ſum of the poſitive roots is equal to the ſum of the negative, and therefore either one poſitive is equal to two negative, or two poſitive roots are equal to the one negative. Let the three roots, for inſtance, be repreſented by a, b, and $-c$, or elſe by $-a$, $-b$, and $+c$; then the co-efficient of the third term will be $ab - ac - bc$. But, on ſuppoſition that the ſecond term is wanting, it will be $a + b = c$. Therefore ac will be greater than ab, and conſequently $ab - ac - bc$ will be a negative quantity."

" Now, in equations of the fourth degree, there may be either three poſitive roots and one negative, as $+a$, $+b$, $+c$, and $-d$; or there may be three negative and one affirmative, as $-a$, $-b$, and $-c$, and $+d$; or there may be two negative and two affirmative, as $-a$, $-b$, $+c$, and $+d$. In the firſt and ſecond caſe, the co-efficient of the third term will be $ab + ac + bc - ad - bd - cd$. But, by ſuppoſition, it ought to be $a + b + c = d$, ſo that ad will be greater than ab, cd than ac, bd than bc, and therefore $ad + bd + cd$ will be greater than $ab + ac + bc$, and conſequently the third term will be negative. In the third caſe, the co-efficient of the third term will be $ab - ac - bc - ad - bd + cd$; and it ought to be $a + b = c + d$. Here, if we make $m = a + b = c + d$, it will be $mm = \overline{a + b} \times \overline{c + d} = ac + ad + bc + bd$, and $mm = \overline{a + b}^2 = aa + 2ab + bb$, and alſo $mm = \overline{c + d}^2 = cc + 2cd + dd$. Therefore it is $ab = \frac{mm - aa - bb}{2}$, and $cd = \frac{mm - cc - dd}{2}$, and $ab + cd = mm - \frac{aa + bb + cc + dd}{2}$. Therefore mm is greater than $ab + cd$, and $ac + ad + bc + bd$ will be greater than $ab + cd$. Whence the co-efficient of the third term will be negative." P. 144.

Then are ſhown all the moſt uſeful transformations of equations; namely, how the poſitive roots may be made to become negative; how the roots of an equation may be increaſed or diminiſhed, multiplied or divided, by any given quantity; together with the reaſons of theſe operations, and their uſes in clearing an equation of fractions, or ſurds (under certain conditions) and in taking away the ſecond, or any other term of it, or ſupplying thoſe terms when wanting.

Equations being thus prepared for a ſolution, the author next treats of their reduction by diviſors of one or two dimenſions, as the caſe may require; illuſtrating her precepts in a very clear manner by the ſolution of two biquadratic equations, by means of quadratical diviſors. This makes the learner acquainted with the utility of ſuch diviſors, and eaſily introduces him to the knowledge of Des Cartes's general method

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of reſolving all biquadratics into two quadratics, which is clearly explained, and applied to uſe.

She then proceeds thus:

"This method [of Des Cartes] requires that the ſecond term ſhould be taken away from the equation, nor can it be extended beyond equations of the fourth degree. But here is another method, which does not oblige us to take away any term, and which may be applied, not only to equations of the fourth degree, but to thoſe of the fifth or ſixth, and ſometimes to thoſe of ſtill higher degrees." P. 156.

This method is fully exemplified in the reſolution of equations of four, five, and ſix dimenſions, by quadratic and cubic diviſors; and then ſhe obſerves, that it may be applied to equations of a ſuperior order, but that "the calculation increaſes beyond meaſure."

We obſerve, *in tranſitu*, that this method of Agneſi, though only tentative, will, in many caſes, be eaſier than the Newtonian method of finding quadratic diviſors; and that it will be uſeful even when the propoſed equation does not admit of commenſurate quadratics.

Having thus ably treated of equations of the higher orders, ſhe proceeds to an application of the doctrine to the ſolution of problems. In theſe ſolutions, ſhe ſhows how high equations may ſometimes be avoided. She ſays,

"Very often, when the problem is not really ſolid, but plane, it may appear as an equation of three dimenſions, by making uſe of ſome certain line for the unknown quantity; but, by uſing ſome other line for the unknown quantity, it may put on the form of an equation of two dimenſions only." P. 167.

Of this an example is given.

She then deſcribes another artifice for this purpoſe, and illuſtrates it with an example, from which an attentive learner cannot fail to obtain great inſight into this matter.

When the methods above-mentioned have been put in practice, if the equation ſtill remains of the third or fourth degree, its roots may be found, as ſhe juſtly obſerves, p. 171, two ways; either by algebraic computation, or by a geometrical conſtruction. Here we find diſtinct inveſtigations of the ſeveral caſes of Cardan's rule for extracting the roots of cubic equations, together with ſome uſeful remarks; among which is a very neat demonſtration, that, when all the roots of an equation are real, Cardan's expreſſion muſt, of neceſſity, contain imaginary quantities; which is called the *irreducible* caſe.

After ſome examples of the uſe of Cardan's rule have been given, the ſolution of biquadratic equations is reſumed; and, it is clearly ſhown, that theſe equations may be ſolved by means of quadratics

quadratics and cubics; and, conſequently, are brought under Cardan's rule, of which an example is given.

But, ſince Cardan's rule is defective, in repreſenting the roots of cubic equations as imaginary when they are real, ſhe purſues this method of ſolution no further, but proceeds to conſtruct theſe and higher equations geometrically; that is, to find their roots by the interſection of the conic ſections and other curves; which method, as ſhe juſtly ſays, is more general than the other, inaſmuch as it is not liable to any ſuch embarraſſment; but, in all caſes, exhibits both the poſitive and negative roots at one view, and the eye diſcerns whether any of them are real or imaginary.

This method of finding the roots of equations of the higher orders is treated at large, and with great ability; and the uſe of it is ſhown (according to the author's excellent way of inſtruction) in the ſolution of ſeveral problems, among which are the famous ones of *doubling the cube* and *triſecting an angle*, which are ſolved in various ways.

In our peruſal of this ſection, we obſerved, with ſome regret, that Agneſi has omitted the Newtonian method of approximation to the roots of equations expreſſed in numbers, with which ſhe could not but be well acquainted. For this omiſſion, therefore, we can conceive no other reaſon, than that ſhe had a great averſion to long and tedious arithmetical calculations, of which there is not one in the whole work. This omiſſion, however, may be ſupplied in a few pages; and we have reaſon to expect that it will be ſupplied in the editor's Supplement to this work.

Sect. v. *Of the Conſtruction of Loci which exceed the ſecond Degree.*

In the two preceding ſections of this book, Agneſi ſhows great knowledge of the conic ſections, and ſkill in the application of it; in this, ſhe diſplays a more profound knowledge of the geometry of curve lines. As we cannot convey to our readers an adequate idea of this ſection without geometrical figures, we muſt only ſtate in general terms, that it contains much information concerning the properties and equations of lines of the third and higher orders; among which, the deſcriptions and equations of the *ciſſoid* of Diocles, and the *conchoid* of Nicomedes (curves of great importance among the ancient geometers) are delivered with perſpicuity.

Sect. vi. *Of the Method de Maximis et Minimis, of the Tangents of Curves, of contrary Flexure and Regreſſion; making Uſe only of the common Algebra.*

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The contents of this ſhort ſection are curious and intereſting. We here find the chief inventions of Van Hudde, Profeſſor Wolf, and other ingenious perſons, for the purpoſes expreſſed in the title, clearly explained and applied to uſe: and although the finding of the greateſt or leaſt values which certain compound algebraic expreſſions admit, the drawing of tangents to curves, and ſolving the other problems here mentioned, be, as Agneſi obſerves, in general more eaſily performed by fluxions, yet it is pleaſant for thoſe who have made no further progreſs in the mathematics than geometry and algebra, to find that the ſolution of ſuch problems is within their reach; and it is ſatisfactory to thoſe who are well ſkilled in fluxions, to ſee a confirmation of their concluſions by proceſſes widely different from each other.

We have now briefly ſtated to our readers the contents of the firſt volume of Agneſi's Analytical Inſtitutions; by which they will perceive that it is a valuable work, and the more ſo, as in it algebra is judiciouſly applied to the higher geometry, which renders it an excellent introduction to the doctrine of fluxions, the ſubject of the ſecond volume. On that volume (in which alſo great ingenuity is diſplayed) we ſhall give our remarks in ſome future number.

Had the volume before us been the work of any profeſſor of our own ſex, it would, in conſideration of the matter, and the ſkill with which it is treated, have had our recommendation. How much more willingly and warmly, then, muſt we give it, when we know that it came from the hand of a young lady? This circumſtance, we doubt not, will excite ſome of the ladies of our own country to the ſame ſtudy, of which indeed at preſent we know one or two examples. For (as the tranſlator and editor obſerve) they want not genius for the ſciences, and might eaſily ſhow to the world, that they are not to be excelled, in any valuable accompliſhment, by Italian ladies, nor by any foreign ladies whatever.

We think it incumbent on us to add one remark more; namely, that this work is not publiſhed as a bookſeller's job, but in a manner worthy of the patron of it. It is printed with a clear, but not large, type; on very good paper; the page is well filled: and the preſs errors are fewer than is uſual in works of this kind; but ſome, as might be expected, have eſcaped the editor's notice.

(To be concluded in another Article.)

ART. VII. *Notes of Opinions and Judgments delivered in different Courts. By the Right Honourable Sir John Eardley Wilmot, Knight, late Lord Chief Juſtice of the Court of Common Pleas, and One of his Majeſty's Moſt Honourable Privy Council**. 4to. 403 pp. Cadell and Davies. 1802.

IT is ſtated, in a ſhort Advertiſement prefixed to this work, that "ſome apology may be thought neceſſary for the publication of ſo ſmall a number of caſes as compoſe the preſent volume;" but the fact is, that ſome of them having been handed about in manuſcript, and having been made uſe of in court, a ſtrong opinion was expreſſed by ſeveral gentlemen of the profeſſion, that they were too valuable not to be made public.

This Advertiſement proceeds to ſtate,

"that they were certainly not intended by the learned Judge for publication, and ſome of them are not perfect; that there is no doubt but they would have been all equally valuable if they had all received his laſt correction; and ſtill more, if his modeſty had permitted him to reviſe them with a view to publication."

The aſſiduous pains taken by thoſe venerable perſons who fill the office of Judges in this country, are not leſs the pride and boaſt of our law, than their general coincidence of opinion upon queſtions which are the moſt complicate and difficult. They who view the duties of their great and reſponſible ſtations at a diſtance, can form no juſt conception of the inceſſant attention requiſite to inveſtigate the ſources of truth and juſtice; and they who follow theſe eminent ſervants of their country into retirement, will find even more to admire in the indefatigable reſearches and patient contemplations of the cloſet, than in the more ſplendid diſcharge of public duty.

The opinions and judgments of this great and upright Judge, which are here publiſhed, were planned and penned, to be delivered with all the weight due to the authority of his high ſtation. It is one of the moſt ſolemn and heavy cares attached to ſuch a ſituation, that its deciſions are not confined to the caſes from which they originate, and upon which they firſt operate. They are to conſtitute a general and living rule for the ſafe conduct of Engliſhmen, in matters of property and life, while this empire ſhall continue to flouriſh, under the

* A Life of Lord Chief Juſtice Wilmot was written for this work, which we received and noticed ſeparately, vol. xxi. p. 306.

protection

protection of its wholesome laws and happy constitution. But this very responsibility is a stimulant to industry and excellence. Neither the errors nor the merits of a Judge can die with him; and every sentiment that flows from his lips should come forth animated and chastened with the consciousness, that he is not merely the immediate dispenser of justice, but that he acts as a lawgiver to posterity.

As we know that sentiments like these must have influenced such a character as the late Lord Chief Justice Wilmot, we think that the editor has said rather too much when he supposes, that these Judgments and Opinions would have been more correct if the learned Judge had revised them with a view to publication. His conjecture is probably well founded, with regard to language and style; but, in the matter of these arguments, we are persuaded that he could have made no corrections, and we believe few, if any additions. They bear every mark of learning and care; and must be regarded, by the profession, as cases of the highest authority and the utmost value. Considering them in this light, they cease to be subjects for criticism. We can only remark, that no note had previously appeared in print of some of the judgments; and that those which had been before published do not come from either so full or correct sources as are now opened to the profession. "The answer to the questions put to the Judges by the House of Lords, respecting the writ of Habeas Corpus, in the year 1758," and the Chief Justice's opinion (when a puisnè Judge of the Court of King's Bench) in the King *v.* Almon, upon the subject of libels, are replete with curious and important information. While we feel thankful for what has been published, we cannot but regret, from the specimen, that no more could be given us.

One remark upon the learned Judge's style we may be permitted to make, namely, that the language is more polished, and the diction, in some instances, more figurative, than is usually found in judicial proceedings. Whether a cold prolixity of expression is better suited than this to the sober correctness of a lawyer's mind, we will not enquire; but we are sure that it is neither so attractive nor so forcible.

The editor has taken no other pains than to have the manuscript well and correctly printed. In this he has succeeded; but there is neither Index, nor marginal abstract of the contents of the several cases, nor reference to subsequent authorities. We cannot but wish it otherwise; knowing, as we do, the great utility of these adjuncts to every gentleman in the profession of the law, who has any considerable portion of business,

ART. VIII. *Remarks on the Theory of Morals: in which is contained an Examination of the theoretical Part of Dr. Paley's Principles of moral and political Philoſophy. By Edward Pearſon, B. D. Rector of Rempſtone, Nottinghamſhire.* 8vo. 5s. Rivingtons, and Hatchard. 1800.

HAVING unaccountably overlooked this ingenious work when it was publiſhed, we feel it incumbent on us to aſſign the reaſon which induces us to call the attention of our readers to it, at the diſtance of three years. The reputation of Mr. Pearſon, in the republic of letters, is deſervedly ſo high, that his *Remarks on the Theory of Morals* muſt long ago have been read, and their merits appreciated by all who intereſt themſelves in ſuch ſpeculations; and any obſervations that we have to make on them, will now come too late to promote their influence, if it be good; or to counteract it, if evil. On this account we had reſolved to take no notice of the volume before us, at ſo late a period, fully perſuaded, that our overſight would not, by any one, be attributed to want of reſpect for an author, whoſe labours in the cauſe of virtue and religion have ſo often merited our applauſe. Our determination was altered by the ſuggeſtion of a friend, who obſerved, that if we had reviewed Mr. Pearſon's remarks on the *Theory* of Morals, our review of his annotations on the *practical* part of Dr. Paley's work * would probably have, in ſome reſpects, been different from what it is; and that it is therefore a debt which we owe to a deſerving author, to lay a view of his theory before our readers, that, even yet, they may have an opportunity of judging for themſelves of the ſoundneſs of the principles from which his practical obſervations are deduced.

We admit the force of this reaſoning; for, though we have obſerved nothing in the *Remarks on the Theory of Morals*, which has the ſmalleſt tendency to alter our opinion of any of the practical annotations, our readers may think differently; and *audi alteram partem* is a maxim of indiſputable authority.

The remarks, which we ſhall now examine, and certainly with candour, are compriſed in five chapters; 1. *On the Foundation of Virtue;* 2. *On the Rule of Virtue;* 3. *On the Obligation to obtain the Knowledge of Virtue;* 4. *On the Motive to Virtue;* and, 5. *On the Diviſion of Virtue.*

* Brit. Crit. vol. xxi. p. 373.

"To thoſe, who are beginning their inquiries into morality as a ſcience, it is a matter of great perplexity," ſays Mr. Pearſon, "to find ſuch a diverſity of opinions, in the different authors they conſult, with reſpect to its *firſt principles*. The variety of notions to be met with, reſpecting the *foundation*, *rule*, *motive*, &c. of virtue, is almoſt equal to the number of thoſe, who have written on the ſubject." *Introduction.*

In proof of this obſervation, he enumerates the theories of various authors, ancient and modern; and then proceeds to develope his own. His firſt inquiry is into the *foundation* of virtue, which he defines *voluntary obedience to the will of God.*

"Now, if this be a juſt definition of virtue, it will immediately appear why no criterion of it, which is univerſally applicable, has been, or can be diſcovered. It muſt be evident, that though, by ſome one or other of the various methods afforded by reaſon and revelation, we can attain to the knowledge of the will of God, reſpecting almoſt any action, of which we may be called upon to judge; yet there is not any *one* rule, to which the will of God reſpecting *every* conſiderable action be reduced." P. 3.

To proves this, he conſiders the rules propoſed by Mr. Wollaſton and Dr. Clarke; and, having objected to the definitions of virtue, given by theſe celebrated authors, he ſhows with ſufficient perſpicuity, that they confound the *principle* of virtue in general, with the *teſt* or criterion by which the virtue of particular actions is to be tried.

We were ſomewhat ſurpriſed at finding Mr. Pearſon paſs, without notice, ſuch writers as *Cudworth* and *Price*. They were both men of eminence in the literary world; and though the theory of morals, which they maintained, differed not eſſentially from that of Clarke, the ſame thing may be ſaid of the theory of Wollaſton, between whom and Clarke there is nothing more than a *verbal* difference. Mr. Wollaſton's *truth* of things, reſults from Clarke's eternal and neceſſary *differences*.

The Biſhops, Berkeley and Warburton, likewiſe had each a theory of morals, of which no notice is here taken; though the criterion of Berkeley ſeems more generally applicable to human actions, than any other that we have met with; and though the theory of Warburton is the ſame with that of this author himſelf.

From Clarke, however, Mr. Pearſon paſſes directly to Dr. Paley, attributing to him the definition of virtue, which near fifty years ago was ſtated in the very ſame words by Dr. Law, then Maſter of St. Peter's College, and afterwards Biſhop of Carliſle.

"Moral

"Moral goodneſs," ſays the Biſhop*, "is not barely willing or producing *natural good*, whether private or public. This would be denominating the whole from a part; the fault of all thoſe definitions formerly mentioned. Thus, they who deſcribe it to be *following nature*, neither ſettle the *matter*, nor eſtabliſh any determinate *rule*; and if they have a *principle*, it is either falſe or inadequate. They who determine it to be acting according to *reaſon*, *truth*, or the *relations of things*, at moſt lay down only the *rule* and *matter*; but give neither any diſtinct *principle*, nor *end*. They who define it to be *obedience to the will of God* only, leave out the material part; i. e. do not ſhow what the will of God requires, or wherein it conſiſts: neither do they ſufficiently informs us *why* we ought to obey it, or direct us to what we call our ultimate end. A complete definition of virtue, or morality, ſhould take in all theſe particulars, and can be only this: *the doing good to mankind in obedience to the will of God, and for the ſake of everlaſting happineſs.*"

This definition, which has been adopted by Dr. Paley, the author thinks liable to objection in all its parts.

"With reſpect to the *ſubject*, or that about which virtue is employed, I contend," ſays he, "that it does not properly form a part of the definition of virtue. Let us firſt ſee what virtue itſelf is. It will then be time enough to determine what actions are virtuous, and what are otherwiſe. But were it proper to include, in the definition of virtue, the *particular* actions, which are to be denominated virtuous, it would be neceſſary to denote them by a term, which comprehends them *all:* whereas, I further contend, that the term of *doing good to mankind*, is altogether an inſufficient one for that purpoſe. Many inſtances of actions might be given, many are given in Scripture, in which, at the time of action, *no reference to the good of mankind is diſcoverable;* but which being done in known or ſuppoſed obedience to the will of God, were yet unqueſtionably acts of virtue. Dr. Paley himſelf acknowledges and adopts the common diviſion of virtue (i. e. the *ſubject* of virtue) into the duties towards *God*, duties towards *men*, duties towards *ourſelves;* and it is not eaſy to ſee how, with any propriety, theſe can be all comprehended under the term of *doing good to mankind.*" P. 12.

As Dr. Paley has admitted the common diviſion of virtue, it muſt be acknowledged, that his definition does not well accord with his ſyſtem; but had he, with many eminent moraliſts, diſtinguiſhed between virtue and natural religion, or conſidered the former as a branch of the latter, this author's objections to his definition would have been groundleſs. It is not indeed eaſy to ſee how "ſilent piety" can be comprehended under the term *doing good to mankind;* but our du-

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* *King's Eſſay on the Origin of Evil. Ed.* 4. *Preliminary Diſſertation.*

ties

ties towards *ourſelves* are certainly comprehended under that term, for there is perhaps no man, whoſe example has not ſome influence, nor any one, however wretched, who can be conſidered as living wholly for himſelf. How actions, which have no diſcoverable reference to *the good of mankind*, can be unqueſtionably *acts of virtue*, we are not able to conceive, unleſs all diſtinction be done away between *piety* and *virtue*, and even between *natural* and *poſitive* duties; but that diſtinction, which is, on many occaſions, of great utility, is expreſsly admitted by our Saviour himſelf, when he deſires the Phariſees to "go and learn what that meaneth—I will have mercy and not ſacrifice." This author indeed ſays, that "when Abraham, in obedience to the command of God, was preparing to ſacrifice his ſon, he performed an act of the ſtricteſt *virtue*." That he performed an act of the ſtricteſt *duty* is moſt evident; but in works treating of morality as a *ſcience*, we apprehend it to be cuſtomary to employ the word *virtue*, to denote only ſuch acts of obedience as are founded on ſome *general* principle or principles.

Mr. Pearſon makes an objection to the place which "the will of God" holds in Dr. Paley's definition of virtue, that looks ſomething like cavilling; but we ſhall have occaſion to obviate it afterwards. His objection to the *motive*, which the Archdeacon and his maſter aſſign to virtue, will be conſidered when we aſcertain the force of the reaſoning by which he ſupports his own definition of virtue.

"It ſeems evident," he ſays, "at firſt conſideration, that the duty of all created beings muſt depend on ſomething, which has reference to their peculiar nature and ſituation; and nothing ſtrikes us ſo forcibly, in this view, as the relation in which they ſtand to their creator. God, in all his works of creation, muſt have had ſome *deſign*, or exerciſe of his will, reſpecting the part to be ſuſtained by them. Under the implied condition, therefore, that this deſign would be anſwered, all beings, whether animate or inanimate, were created, and are ſtill preſerved. Put the caſe, that we were made by a being, who was of a moral character, ſomething different from that which we have every reaſon to attribute to God. Would our duty have been exactly the ſame as it is now? It appears evidently to me, that it would not; not only becauſe, in conſiſtency with ſuch a ſuppoſition, our minds would have been differently formed, and therefore a different conduct would have *appeared* to us as our duty; but becauſe a different conduct would have been pleaſing to ſuch a being, and therefore the proper part and duty of his creatures. In that caſe alſo, the *motives* to action would have operated in a different way; ſince we could not expect rewards from ſuch a being, but by a conduct different from that, which it is now neceſſary to purſue for that purpoſe. I do not ſay, that thoſe, who have miſtaken the *real* character of the Deity, and acted accordingly, are therefore excuſable in acting wrong. This is a different caſe.

caſe. They *may* be excuſable; but their excuſe depends on the *circumſtances* of their particular ſituation. It is then, the duty of all created beings, *as ſuch*, to obey the will of their creator; and we need not, I think, proceed any further to be aſſured, that it is the duty of man, as a creature and dependant, to obey the will of God. The attempt to trace his obligation to virtue to any higher ſource is, if I miſtake not, as unneceſſary, as it would be in vain." P. 17.

Much of this reaſoning is unanſwerable; but the queſtion, "*Why* are we bound to obey the will of God?" is certainly not abſurd. If Mr. Pearſon ſay that our *conſcience* or *moral ſenſe* dictates, as duty, obedience to the will of God in all caſes, then he muſt confeſs that not obedience to *the will of God*, but obedience to *the dictates of the moral ſenſe*, is the proper definition of virtue, and that the *dictates* of the *moral ſenſe*, and not the *will of God*, are its *foundation*. That we have a *moral ſenſe* is incontrovertible. Whether it be *innate*, or the reſult of *early* and *neceſſary aſſociation*, may admit of much controverſy; but it is certain, that wherever the moral ſenſe has dictated obedience to the will of God, it has likewiſe dictated *compaſſion* for the misfortunes of men, and *gratitude* for benefits received. Nay, we believe that Mr. Pearſon himſelf will acknowledge, that compaſſion and gratitude have often been found among ſavages who "had not God in all their thoughts."

The moral ſenſe, however, whether innate or acquired, is ſo liable to be confounded with the *prejudices* of education, that all men of reflection now confeſs that, taken by itſelf, it is a very unſafe criterion of virtue. What then remains to "aſſure us that it is the duty of man, as a creature and dependant, to obey the will of God?" Evidently nothing but, either the underſtanding, which, to uſe the language of Cudworth and Clarke, perceives the *fitneſs* of ſuch obedience as it reſults from the *relation* which we bear to our Creator; or *regard* to our *own happineſs*, which can be ſecured only by pleaſing him who made and governs the world. But this author acknowledges, that the *fitneſs* reſulting from Clarke's "eternal and neceſſary differences of things," though it may be the ground on which ſome actions are virtuous, and others vicious, in the eſtimation of God, tends not to enforce the practice of virtue among men; and, therefore, it ſhould ſeem that *voluntary obedience to the will of God*, without mentioning the motive to ſuch obedience, is not a complete definition of *human* virtue.

We ſhould conſider *voluntary obedience to the will of God for the ſake of future happineſs*, as a good definition, in the preſent

preſent ſtate of the world, of *natural religion;* and as we cannot form an adequate notion of morality, but by conſidering it as a branch of natural religion, we can perceive no ſolid objection to Dr. Paley's definition of virtue, or to the ſanction by which alone he thinks it can be enforced. Mr. Pearſon indeed ſays, that

"It would be hard to deny the capacity of being virtuous to all thoſe, who have not attained to ſuch a belief of a life to come, as to influence their actions; the caſe, probably, of the moſt reſpectable part, if not the majority, of the ancient heathen world. Yet were this clauſe (for the ſake of everlaſting happineſs) admitted into the definition of virtue, this would be the evident conſequence. For, even though they did good to mankind, and did it in obedience to the will of God, it follows from this definition, that they could not be virtuous in doing ſo, unleſs they alſo had regard to everlaſting happineſs." P. 15.

To illuſtrate this reaſoning, he obſerves, that

"the Sadducees among the Jews, and the Epicureans among the heathens, totally rejected the belief of a future ſtate. Shall we therefore ſay, that no Sadducee or Epicurean ever did a virtuous action?"

A Sadducee might certainly perform a virtuous action, either on Dr. Paley's principles, or on this author's; but it is difficult to conceive how an Epicurean could be virtuous, if virtue be *voluntary obedience to the will of God.* The Epicureans were unqueſtionably one ſect of thoſe philoſophers,

"qui omnino *nullam habere* cenſerent *humanarum rerum procurationem dees.* Quorum ſi vera ſententia eſt, quæ poteſt eſſe pietas? quæ ſanctitas? quæ religio? hæc enim omnia, purè, ac caſtè tribuenda deorum numini ita ſunt, ſi animadvertentur ab his, et ſi eſt aliquid a diis immortalibus hominum generi tributum. Sin autem dii neque poſſunt nos juvare, neque volunt; nec omnino curant; nec quid agamus animadvertunt; nec eſt quod ab his ad hominum vitam permanare poſſit: quid eſt, quòd ullos diis immortalibus cultus, honores, preces adhibeamus?—Atque haud ſcio, an pietate adverſus deos ſublata, fides etiam, et ſocietas humani generis, et una excellentiſſima virtus juſtitia tollatur." *Cicer. de Nat. Deorum, Lib.* 1.

It is indeed obvious, that no virtuous action could be performed by men holding ſuch opinions reſpecting Providence, *if virtue be voluntary obedience to the will of God.* They might attend to the *fitneſs* reſulting from the *neceſſary difference of things*, or obey the dictates of *the moral ſenſe* in their tranſactions with each other; but, according to this author, as well

well as Dr. Paley, neither this *obedience*, nor that *fitneſs*, conſtitutes virtue*.

The caſe of the Sadducee was very different from that of the Epicureans. A Sadducee certainly believed in the God of Iſrael, and admitted, in ſome ſenſe, his ſuperintending providence. The Jewiſh law promiſed temporal happineſs to the virtuous, and threatened temporal miſery to the vicious. Theſe promiſes and threats were carried into effect during the continuance of the theocracy; and it might be the belief of the Sadducees, as it was of the other Jews, that they would be carried into effect again under the expected reign of the Meſſiah. A Sadducee, therefore, might pay a voluntary obedience to the will of God, from a regard to his own happineſs, and thus be a virtuous man as well on Dr. Paley's principles, as on thoſe of this author. It is true, that the Archdeacon and his maſter define virtue to be "the doing good to mankind in obedience to the will of God, and for the ſake of *everlaſting happineſs*;" and it was certainly not improper to do ſo in an age and country, where virtue is not uniformly rewarded, nor vice uniformly puniſhed, in the preſent life; but had they written under the Jewiſh theocracy, their definition would probably have been, "the doing good to mankind in obedience to the will of God, and for the ſake of happineſs." All that, to us at leaſt, the Archdeacon's ſyſtem ſeems to require, is, that by the appointment of God, virtue ſhall lead to happineſs, and vice to miſery, either here or hereafter; and as this is obviouſly not *always* the caſe here, it directs mankind to reſt their hopes principaliy on a future ſtate.

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* The reader will obſerve, that we have not ſaid that no Epicurean could perform a virtuous action. We only contend, that the virtue of an Epicurean is as inconſiſtent with this author's definition of virtue, as with Dr. Paley's. If virtue be defined *the voluntary doing of good to mankind*, without including in the definition either the *motive* to virtue, or its *foundation*, an Epicurean may certainly perform virtuous actions, prompted thereto either by the *moral ſenſe*, or by the proſpect of immediate *ſelf-intereſt*, with which, as Mr. Pearſon well obſerves (pp. 24, 25) "the provident goodneſs of God has, in many inſtances, made our duty to agree."

(To be concluded in our next.)

ART. IX. *Oriental Cuſtoms: or an Illuſtration of the Sacred Scriptures, by an explanatory Application of the Cuſtoms and Manners of the Eaſtern Nations, and eſpecially the Jews, therein alluded to. Together with Obſervations on many difficult and obſcure Texts, collected from the moſt celebrated Travellers, and the moſt eminent Critics. By Samuel Burder.* 8vo. 400 pp. 7s. Williams. 1808.

MR. HARMER's Obſervations on Paſſages of Scripture have long been out of print, which circumſtance, among many others, affords a ſatisfactory proof, that the branch of literature which he cultivated was both uſeful and acceptable to many readers. Mr. Burder, the author of this volume, has purſued, with conſiderable effect, though he has confined himſelf to a ſmaller circle, preciſely the ſame plan; and, to the materials collected from Harmer, has added ſome very important remarks, from Shawe, Pococke, Ruſſell, Bruce, and many diſtinguiſhed modern writers. This author, thinking the work of Mr. Harmer too copious and extenſive for general uſefulneſs, has confined his publication to a ſingle volume; but this nevertheleſs compriſes illuſtrations of the whole ſacred volume, from Geneſis to the Book of Revelation.

The writer ſpeaks of himſelf and his production with ſingular modeſty; but we have no ſcruple in ſaying, that his book will be found both intereſting and uſeful. A ſhort extract will enable the reader to determine for himſelf. We aſſume for granted, that where the author's name is not ſpecified, the remarks and illuſtrations are thoſe of Mr. Burder himſelf.

"No. 168.—Pſalm xvi. Title.

Michtam.

"D'Herbelot obſerves of the works of ſeven of the moſt excellent Arabian poets, that they were called Al Modhahebat, which ſignifies golden, becauſe they were written in letters of gold upon Egyptian paper. (p. 586.) Might not the ſix pſalms which are thus diſtinguiſhed be ſo called, on account of their having been, on ſome occaſion or other, written in letters of gold, and hung up in the ſanctuary? Ainſworth ſuppoſes that Michtam ſignifies a *golden jewel.* Such a title would have been agreeable to the eaſtern taſte, as D'Herbelot has mentioned a book intitled *Bracelets of Gold.* Writing in letters of gold ſtill continues in the Eaſt. Maillet, ſpeaking of the royal Mohammedan library in Egypt, ſays, "the greateſt part of theſe books were written in letters of gold, ſuch as the Turks and Arabs, even of our time, make uſe of in the titles of their books." (Lett. xiii. p. 189.) The Perſians are fond of elegant manuſcripts, gilt and adorned with garlands of flowers. (Jones's Perſian Grammar, p. 144.)

"No. 169.—xix. 10. *Sweeter alſo than honey and the honey-comb.*] There is no difference made amongſt us between the delicacy of honey

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in the comb and that which is ſeparated from it. From the information of Dr. Halley, concerning the diet of the Moors of Barbary, we learn, that they eſteem honey a very wholeſome breakfaſt, "and the moſt delicious, that which is in the comb, with the young bees in it, before they come out of their caſes, whilſt they ſtill look milk-white." (Miſcellanea Curioſa, vol. iii. p. 382.) The diſtinction made by the Pſalmiſt is then perfectly juſt, and conformable to cuſtom and practice, at leaſt of more modern, and probably equally ſo of ancient times.

"No. 170.—xx. 5. *In the name of our God we will ſet up our banners.*] The banners formerly ſo much uſed were a part of military equipage, borne in times of war, to aſſemble, direct, diſtinguiſh, and encourage the troops. They might poſſibly be uſed for other purpoſes alſo. Occaſions of joy, ſplendid proceſſions, and eſpecially a royal habitation, might ſeverally be diſtinguiſhed in this way. The words of the Pſalmiſt may perhaps be wholly figurative; but, if they ſhould be literally underſtood, the alluſion of erecting a banner in the name of the Lord, acknowledging his glory, and imploring his favour, might be juſtified from an exiſting practice. Certain it is, that we find this cuſtom prevalent on this very principle in other places, into which it might originally have been introduced from Judea. Thus Mr. Turner (Embaſſy to Tibet, p. 31) ſays, "I was told that it was a cuſtom with the ſoobah to aſcend the hill every month, when he ſets up a white flag, and performs ſome religious ceremonies, to conciliate the favour of a dewta, or inviſible being, the genius of the place, who is ſaid to hover about the ſummit, diſpenſing at his will good and evil to every thing around him."

"No. 171.—xlii. 3. *My tears have been my meat day and night.*] It ſeems odd to an Engliſh reader to repreſent tears as meat or food; but we ſhould remember, that the ſuſtenance of the ancient Hebrews conſiſted for the moſt part of liquids, ſuch as broth, pottage, &c.

"No. 172.—xliv. 20. *Stretched out our hands.*] The ſtretching out of the hand towards an object of devotion, or an holy place, was an ancient uſage among both Jews and heathens, and it continues in the Eaſt to this time. Pitts, in his account of the religion and manners of the Mahometans, ſpeaking of the Algerines throwing wax candles and pots of oil overboard, to ſome Marabbot (or Mohammedan ſaint) ſays, "when this was done, they all together *held up their hands*, begging the Marabbot's bleſſing, and a proſperous voyage." (p. 17.) This cuſtom he frequently obſerved in his journey.

"No. 173.—xlv. 3. *Gird thy ſword upon thy thigh.*] The Eaſtern ſwords, whoſe blades are very broad, are worn by the inhabitants of theſe countries *under their thigh* when they travel on horſeback. Chardin takes notice of theſe particulars. He ſays, the Eaſtern people have their ſwords hanging down at length, and the Turks wear their ſwords on horſeback under their thigh. This paſſage, and Sol. Song, iii. 8. ſhow they wore them after the ſame manner anciently. Harmer, vol. i. p. 448.

"No. 174.—lvi. 8. *Put my tears into thy bottle.*] Doth not this ſeem to intimate, that the cuſtom of putting tears into the *ampullæ*, or *urnæ lachrymales*, ſo well known amongſt the Romans, was more an-

ciently in uſe amongſt the Eaſtern nations, and particularly amongſt the Hebrews? Theſe urns were of different materials, ſome of glaſs, ſome of earth; as may be ſeen in Montfaucon's Antiq. Expliq. vol. v. p. 116, where alſo may be ſeen the various forms or ſhapes of them. Theſe urns were placed on the ſepulchres of the deceaſed, as a memorial of the diſtreſs and affection of their ſurviving relations and friends. It will be difficult to account for this expreſſion of the Pſalmiſt, but upon this ſuppoſition. If this be allowed, the meaning will be, *let my diſtreſs, and the tears I ſhed in conſequence of it, be ever before thee, excite thy kind remembrance of me, and plead with thee to grant me the relief I ſtand in need of.* Chandler's Life of David, vol. i. p. 106.

" No. 175.—lviii. 6. *Break their teeth.*] This clauſe of the verſe is underſtood as a continuation of the foregoing verſe, and to be interpreted of the method made uſe of to tame ſerpents, which Chardin ſays, is by breaking out their teeth. Muſic has a wonderful influence upon them. Adders will ſwell at the ſound of a flute, raiſing themſelves up on the one half of their body, turning themſelves about, and beating proper time. (Harmer, vol. ii. p. 223.) Teixeira, a Spaniſh writer, in the firſt Book of his Perſian Hiſtory, ſays, that in India he had often ſeen the Gentiles leading about the enchanted ſerpents, making them dance to the ſound of a flute, twining them about their necks, and handling them without any harm. (See alſo Picart's Ceremonies and Religious Cuſtoms of all Nations, vol. iii. p. 268, note). Niebuhr, vol. i. p. 152.

" No. 176.—lix. 14. *Dog.*] Though dogs are not ſuffered in the houſes in the Eaſt, and people are very careful to avoid them, leſt they ſhould be polluted by touching them, there are great numbers of them in their ſtreets. They do not belong to particular perſons, nor are they fed regularly, but get their food as they can. It is conſidered right, however, to take ſome care of them: thus charitable people frequently give money to butchers and bakers to feed them, and ſome legacies at their deaths for the ſame purpoſe. (Le Bruyn, tom. i. p. 361.) Dogs ſeem to have been looked upon among the Jews in a diſagreeable light, (1 Sam. xvii. 43; 2 Kings, viii. 13;) yet they had them in conſiderable numbers in their cities. They were not ſhut up in their houſes or courts, but ſeem to have been forced to ſeek their food where they could find it. (Pſalm lix. 6, 14, 15.) Some care of them ſeems to be indirectly enjoined upon the Jews, Exod. xxii. 31. Harmer, vol. i. p. 220.

" No. 177.—lxix. 9. *The zeal of thine houſe hath eaten me up.*] Peyſonnel, in his Remarks on Baron Du Tott (p. 45,) deſcribes a cuſtom which probably is alluded to by the Pſalmiſt. " Thoſe who are aggrieved ſtand before the gate of the ſeraglio: each carries on his head a kind of match, or wick, lighted and ſmoaking, which is conſidered as the allegorical emblem of the fire that conſumes his ſoul." The LXX. acquainted with this practice, have given a verſion of the paſſage more bold than our own, and more agreeable to the Hebrew. *The zeal of thine houſe hath* MELTED *me—i. e.* conſumed me by fire.

" No. 178.—lxxii. 10. *The kings of Tarſhiſh and of the iſles ſhall bring preſents.*] Preſents were ſometimes made as an acknowledgment

of inferiority and ſubjection. They were a kind of tribute from thoſe who made to thoſe who received them: in this light we are doubtleſs to underſtand thoſe ſpoken of in this verſe. Harmer, vol. ii. p. 20.

"No. 179.—lxxv. 4, 5. *Liſt not up your horn on high, ſpeak not with a ſtiff neck.*] This paſſage will receive ſome illuſtration from Bruce's remarks in his Travels to diſcover the Source of the Nile, where, ſpeaking of the head-dreſs of the governors of the provinces of Abyſſinia, he repreſents it as conſiſting of a large broad fillet bound upon their forehead, and tied behind their head. In the middle of this was a horn, or a conical piece of ſilver, gilt, about four inches long, much in the ſhape of our common candle extinguiſhers. This is called kirn, or horn; and is only worn in reviews, or parades after victory. The crooked manner in which they hold the neck, when this ornament is on their forehead, for fear it ſhould fall forward, ſeems to agree with what the Pſalmiſt calls *ſpeaking with a ſtiff neck*; for it perfectly ſhows the meaning of ſpeaking with a ſtiff neck, when you hold the horn on high, or erect, like the horn of a unicorn. See alſo Pſalm xcii. 10." P. 114.

In the latter part of the volume, Mr. Burder has made frequent uſe of the works of Doddridge, Whitby, Hammond, Jennings, Campbell, and other diſtinguiſhed commentators on ſcripture; and though, in many inſtances, the moſt natural actions are turned into Oriental cuſtoms, as will be ſeen above, every candidate for holy orders will do well to give theſe illuſtrations a place in his library. The reader ſhould alſo be informed, that two Indexes are ſubjoined, which will be found very uſeful; one, of the paſſages of ſcripture which are incidentally illuſtrated; and another, of the miſcellaneous ſubjects which are diſcuſſed.

ART. X. *The Temple of Nature, or the Origin of Society, a Poem, with Philoſophical Notes. By Eraſmus Darwin, M.D. F. R. S. Author of the Botanic Garden, of Zoonomia, and of Phytologia.* 4to. 298 pp. 1l. 15s. Johnſon. 1803.

WE have ſeldom been called to the review of a publication ſuch as the preſent; not that we have been ſo fortunate as to eſcape from all works poetical and fantaſtical, didactic and unintelligible; but that the "Temple of Nature," &c. is ſingular in the principle upon which it ſeems to have been conſtructed. Our readers will remember the applauſe with which the "Loves of the Plants," an early work of Dr. Darwin, was received in moſt of the female boarding-ſchools of this kingdom. They will alſo remember the very general ſatisfaction occaſioned to the public by an imitation of that poem,

in

in the "Loves of the Triangles." This, in all probability, was the cauſe of the work before us. Though not diſpleaſed with the reception of his own poem, the Doctor was ſtung with the ſuperior ſucceſs of his imitator; and, in a fit of honourable jealouſy, produced the "Temple of Nature." He had marked with anxiety thoſe near, and too happy approaches to his own beautiful luxuriance of ſtyle; his fictitious accumulation of imagery, &c. &c. He determined not to be eclipſed by his follower; but to recall his fame, now migrating from the Priory to St. Mary Axe. This could only be done by adopting the method of his rival, and following him in turn. He therefore imitated his imitator, and was at once his own original and copy.

——— in ſe
Volvitur Ixion, et ſe ſequiturque fugitque.

What the feelings of Mr. Higgins may be, at the ſight of the Doctor, thus "circumvolving" on the wheel of poetic torture, it is not in our power to ſay. The conſolation of the Doctor, in this laſt inſtance, continued to be what it formerly was. He ſtill looked to the toilet, and aſpired to be received once more as the prime philoſopher and poet of the ladies.

"So ſhall my lines ſoft-rolling eyes engage,
And ſnow-white fingers turn the volant page:
The ſmiles of beauty all my toils repay,
And youths and virgins chant the living lay." P. 4.

We ſhall now proceed to lay before the reader a few of thoſe internal marks which have convinced us, that the "Temple of Nature" aroſe from the "Philoſophical Poem addreſſed to Dr. Darwin," in the Anti-Jacobin Newſpaper.

The general ſtructure of this work is formed in obedience to the celebrated invocation of the "Loves of the Triangles."

"But chief, thou nurſe of the didactic muſe,
Divine NONSENSIA, all thy ſoul infuſe."

The Doctor, whoſe reading and judgment were proved by Mr. Higgins to have been extraordinary, had diſcovered, that the Eleuſinian myſteries were formerly borrowed by the Romans from the Greeks; and that "Virgil, in the ſixth Book of the Æneid, is ſuppoſed, *with great probability*, to have deſcribed a part of theſe myſteries, in his account of the Elyſian fields." P. 13. What was ſo natural as to wiſh, that the ſame benefit ſhould be extended to ourſelves? Accordingly, the preſent poem was written with the hope, that the good ſenſe of the people of this country would call for the introduction of the myſteries among us, for the "explanation of philoſophi-

cal

cal truths by adapted imagery." P. 13. Urania, who is converted for the purpoſe into the Hierophant, explains to the "enquiring Muſe" the operations of nature, "in the order in which the progreſſive courſe of time is ſuppoſed to have preſented them." The audience is compoſed of "Fawns, and Naiads, and Cupids," who "crowd in ſilent rings," or "ſtretch their purple wings;" of "attentive nymphs," who throng around; and of "choral virgins," who liſten, and, from time to time, "claſp their velvet hands," in admiration, &c. The ſcene is proper for the actors. It is laid where Paradiſe had formerly been, and where Nature then was; for it is an important truth, to be found only in this poem, that Paradiſe was made firſt, and Nature afterwards.

If, from the plan of the work, we deſcend to the minor marks of imitation, we ſhall find enough to convince the unprejudiced reader of the truth of our ſuſpicion. We have juſt ſeen the "Loves and Graces" of the Doctor, bounding with "impatient ſtep" upon the ſoil of Paradiſe; and they "*titter* as they paſs." A direct imitation of the mathematical forms of Mr. Higgins, who "*titter* as they prance." Mr. Higgins had alſo "warned the profane" not to intrude upon the haunts of his Muſe, with "rude unhallowed ſtep," &c. and the Doctor, with an equal ſcorn of the vulgar, warns off the "unhallowed throngs, that paſs with footſteps rude" upon ſuch choice ground as he has given to his nymphs, &c. But, of the expreſſive words borrowed by the Doctor, none is more frequent than "ſimpering;" in the uſe of which, for we wiſh to ſpeak impartially, he excels his model: for what is the "ſimpering water," or the "ſimpering freedom," of Mr. Higgins, if compared with the boldneſs of "ghoſts ſimpering upon Orpheus" in Hell (p. 17), or the affecting circumſtance, that in the Cave of Oblivion there is "nor ſong nor *ſimper*."

Nearly the ſame regard is ſhown to every thing that may or may not be called "young." Thus he talks of "young reflection," "young ſenſation," "young globe," and "young volcanoes;" the ſame, in all probability, which Mr. Higgins deſcribed as being yet in their egg, and waiting to be hatched. As to the employment of phraſes, or philoſophical terms, not often found in poetry, the imitation is too obvious to be doubted for a moment. Thus, the "lengthened lines," the "cone and cylinder," immediately recall to us the "lengthened line," and the "huge cube, the cylinder, and cone" of his rival; while the "quick-ſhooting ſalts," and "mucor ſtems," and "monas," and "vibrio," and "vorticella," prove his anxiety to avail himſelf of the opening left by Mr. Higgins, who had modeſtly expreſſed his fears, leſt the "unbending

bending ſtiffneſs of a ſcientific ſubject ſhould be but ill fitted to poetry." We need not dwell on this ſort of proof, and ſhall therefore paſs to the ſubjects which engage Urania and her audience. They are treated in a manner perfectly new; and worthy of thoſe who eat, whenever they pleaſe, of the "tree of knowledge." She ſpeaks of the production and reproduction of life, the progreſs of the mind, and the doctrine of good and evil. In the courſe of her inſtructions we find, that animation is produced by *heat acting upon water;* that tadpoles are like thoſe "aquatic and aërial animals" called men; that Kings are not wholly uſeleſs, for when dead they will produce paſſing good plants, &c. that mountains are "monuments of *paſt delight*," and that thoſe of America are ſo very tall, that they muſt needs be very *young*, p. 54; that diſcarded ſtateſmen become unhappy "from the too great accumulation of the ſenſorial power of volition," p. 136, (a piece of philoſophy which it would be deſireable to aſcertain from living inſtances); that till man became a ſocial being, there was no ſuch evil in the world as "old age," p. 43; that the moon was thrown out of the South Sea by the ſteam of diamonds in a ſtate of evaporation, Appendix, p. 14, (the reaſon, perhaps, why they have been ſo ſcarce ever ſince); and, finally, that the exiſtence of ſome good on earth is demonſtrated by the viſit of Sir F. Burdett to Cold Bath Fields priſon, and his interceſſion with Government on behalf of thoſe whoſe ſufferings he had gone to alleviate, in the "caves of night:" for, emerging from thence, this "friend of man,"

> "With *ſoft* aſſuaſive eloquence addreſſed
> The ear of power to ſtay his ſtern behеſt;
> At mercy's call to ſtretch his arm, and ſave
> His tottering victims from the gaping grave." P. 146.

And here, again, we meet with evident proofs of the truth of the principle upon which we began to interpret this Poem; for the paſſage undoubtedly refers to the "patriotic train," celebrated by Mr. Higgins,

> "Muir, Aſhley, Barlow, Tone, O'Connor, Paine."

Some of whom, at leaſt their principal and confidential friends, were in the "caves of night," at the very time of this benevolent viſit. It is happy for the poet when he can find a ſubject which may be viewed in ſeveral relations at the ſame time; and, in the preſent inſtance we ſee, that political attachment was ſo eſſentially mixed with benevolence, that the one could not have exiſted without the other. In compariſon of this, how naked and unintereſting is the deſcription which Thomſon gives of the efforts of the Jail Committee, in 1729.

> "And here can I forget the generous band,
> Who, touched with human woe, redreſſive ſearched

Into

Into the horrors of the gloomy jail?
Unpitied and unheard, where misery moans,
Where sickness pines," &c. *Winter.*

Here we see nothing but plain charity, unassisted by personal or political feelings; and the minds of the visitors want the influence of those motives, both private and public, which, in the case celebrated by Dr. Darwin, are seen in such beautiful conjunction with benevolence, pointing its application, and heightening its activity.

This must suffice for our opinion of the "Temple of Nature." Yet, for the sake of our younger readers, we will not dismiss the article without adding a word or two of seriousness; especially as we *know*, that, even at this late time, after all that satire and good sense have done to prevent it, the world is not without admirers of Dr. Darwin. We will, therefore, point out a few of the more prominent vices of this writer.

1. His writings consists almost entirely of abstractions, the nakedness of which he endeavours to hide by a profusion of ornament, calculated only to dazzle and mislead. If the young reader will look into our better poets, Thomson, for example, from whom a passage was just now quoted, he will find, that the excellence and solidity of their descriptions arise from the use they make of real and substantial nature. With them "organic forms" do not "strive" in shadowy combat, "with chemic changes," &c. Men and things are their subjects; and we understand the qualities ascribed to each, because we see them represented in conjunction with the subjects in which they naturally dwell. The metaphysical creations of Dr. Darwin leave no impression on the mind. Now and then, indeed, we meet with a fair reader, who "clasps her *velvet* hands" in admiration of them; but without the power of affixing any certain meaning to what she applauds. It is empty rapture without sense.

2. He endeavours to give a value and currency to his unreal and unintelligible philosophy, by suddenly joining it with some of the most common actions of life, as if the one naturally and necessarily grew out of the other. Hence the amazement of the unpractised reader, who is inclined to blame himself for not sooner comprehending what was not to be comprehended. All of us do not recollect, that, when we were at the breast, our reigning inclination was to ascertain by the fingers, the "external forms of bodies." But when we see "young puppies" mumbling what they hold between their paws for the same purpose, the truth of that philosophy can no longer be doubted! p. 96. Again, all of us cannot comprehend the Doctor's theory of "young surprise." But when we find that the small-pox can be taken only once, we

see,

ſee, that the *ſurpriſe* of the conſtitution is at an end; and that the infection cannot be repeated upon it after it has arrived at the age of diſcretion, and is no longer to be impoſed upon through an inexperienced curioſity! Appendix, p. 30, &c. Thus it is, that moral and material proceſſes are confounded, and the workings of the mind degraded to a level with the fermentation of the humours of the body! But folly is venial when compared with impiety. We therefore point out, with particular reprobation,—

3. His mixture of ſcriptural truths, with vague or licentious imagery. Every one muſt admire the ſimplicity and propriety with which the Bible repreſents our firſt parents eating of the forbidden fruit. "She took of the fruit and did eat, and gave alſo unto her huſband with her; and he did eat." Who, but Dr. Darwin, would have thrown a theatrical wantonneſs over this ſober and moſt chaſte repreſentation?

> "On ſun-bright lawns unclad the Graces ſtrayed,
> And guiltleſs Cupids haunted every glade; [*of Paradiſe!*
> Till the fair bride, forbidden ſhades among,
> Heard, unalarmed, the Tempter's ſerpent tongue;
> Eyed the ſweet fruit, the mandate diſobeyed,
> And her fond Lord with ſweeter ſmiles betrayed.
> Conſcious awhile with throbbing heart he ſtrove,
> Spread his wide arms, and *bartered life for love!*"

4. We will mention yet another inſtance; his indiſcriminate reception of any thing fabulous or true, ſacred or profane, which may furniſh him with a ſpecious ſimile, &c. Thus, to prove that from dead "organic matter," new life is produced by "alchemic power," he inſtances the renovation of the Phœnix. "So when Arabia's bird," &c. But who would believe, that even Dr. Darwin would have dared to profane the ſolemn and moſt affecting doctrine of the reſurrection at the laſt day, by compelling it to ſerve as an illuſtration of the ſame baſe and lying philoſophy!

> "While Nature ſinks in Time's deſtructive ſtorms,
> The wrecks of death are but a change of forms;
> Emerging matter from the grave returns,
> Feels new deſires, with new ſenſations burns,
> With youth's firſt bloom a finer ſenſe acquires,
> And loves and pleaſures fan the riſing fires.—
> Thus, ſainted Paul, "O Death!" exulting cries,
> "Where is thy ſting? O Grave! thy victories?" P. 161.

We are full of horror, and will write no more*.

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* We cannot forbear ſubjoining, in a note, that the diſtorted and deteſtable deſigns engraved to illuſtrate this work, are no leſs an inſult upon taſte and good ſenſe, than the Poem itſelf.

ART.

ART. XI. *The Modern Hiſtory of Hindoſtan: comprehending that of the Greek Empire of Bactria, and other great Aſiatic Kingdoms, bordering on its Weſtern Frontier, commencing at the Period of the Death of Alexander, and intended to be brought down to the Cloſe of the Eighteenth Century. Vol. II. Part I.* 4to. 1l. 1s. White. 1803.

WE have now arrived at the third portion of this intereſting work, in which the various invaſions of India, by Timur Bec, and other Tartar and Mohammedan chiefs, from the year of Chriſt 1398, to the death of the Mogul Emperor Jehanguire, in 1627, are ſucceſſively and ſuccinctly detailed. In an elegant and ſpirited Dedication to Mr. Penn, the author, ſtruck with the reſembling atrocities committed by thoſe ravagers, and the remorſeleſs deſolator of modern Europe, properly and feelingly exclaims:

"And was there ever, in the annals of the world, an æra in which it was more neceſſary to hold up to public deteſtation the enormity of thoſe offences? Let the wretched inhabitants of the ravaged provinces of the fineſt portions of Europe, reduced to beggary by a more infuriate deſpot than either Gengis or Timur, anſwer this queſtion. If, in thoſe ages of barbarity and ignorance, the latter put to death, in cold blood, one hundred thouſand miſerable captives under the walls of Delhi, were the butchering of Jaffa, and the poiſoning of Roſetta, in theſe enlightened periods, under a general bearing the name of Chriſtian, and educated in the liberal ſchool of modern warfare, leſs politically infamous, or leſs diabolically wicked? It is to ſuch monſters, ſtained with the blood of their fellow-creatures, and black with unheard-of crimes, that the loud and warning voice of Hiſtory addreſſes itſelf: while her faithful page exhibits their true characters, ſtript of each ſplendid, each deluſive decoration, and devoted to the bittereſt execrations of poſterity. Such muſt be the inevitable fate of the baſeſt of theſe heroic aſſaſſins, this modern Timur, whoſe aim is to revolutionize the univerſe, and who impotently points the thunder of his vengeance againſt the ſhores of Britain; or rather 'tis his ſuperlatively fortunate deſtiny to poſſeſs the curſes of the *preſent*, with the certainty of obtaining thoſe of every *future* generation."

The ſources from which Mr. Maurice profeſſedly draws his account of the Indian conqueſts of Timur are, Sherefeddin's Perſian Hiſtory of that prince, ſuppoſed to be tinctured with a conſiderable degree of partiality, and even adulation; and that of Arabſhah, in Arabic, proportionably hoſtile and malevolent; the cauſe of which, is diſcovered in the reſpective ſituations and prejudices of the two writers: the former being ſecretary to Timur; and the latter, from the circumſtance of his having plundered and laid waſte his native country, bear-

ing againſt the victor the moſt inveterate hatred. Mr. M. obſerves, that the true features of his character can only be deduced from an impartial compariſon of the different accounts; and his diſcriminating narrative equally rejects the adulation of the Perſian, and the groſs invective of the Arabian author. The character, however, of Timur, as perhaps of every great uncultivated genius in the eager purſuit of its darling object, ſeems to have been in its nature contradictory; for, in one page, we find him conſigning to pitileſs deſtruction an immenſe body of *unarmed captives*, who might eaſily, and with ſecurity, have been otherwiſe diſpoſed of; and, in the next, we behold him proſtrate before the God of Mercy, intreating that protection and ſupport which helpleſs age and innocence had in vain ſolicited at his own tribunal. Both the paſſages are intereſting; and may, without impropriety, be cited, as affording no indifferent ſpecimens of the ſtyle and manner adopted by the author in this Hiſtory.

"On the day ſubſequent, Timur moved his camp to a more eaſterly ſituation; and, croſſing the Jumna, made the neceſſary preparations for that dreadful battle which was to decide the fate of India; for, from deſerters he learned, that on a battle the Indian emperor was determined; and for that purpoſe, was on the point of iſſuing from Delhi at the head of all his forces. His diſpoſitions on this occaſion were maſterly; and his genius diſplayed itſelf in a manner worthy of his high military character; but, at this criſis, he was guilty of an act of horrible and unheard-of cruelty, by no means to be juſtified by even the barbarous policy of Tartar warfare. During their circuitous route from the Indus to Delhi, a vaſt number of Indians, to the amount of about 100,000, had been made captive, and were diſtributed in different lots among the more deſerving of the officers and men. It had been obſerved, that during the engagement of the preceding day, at the preciſe moment when victory ſeemed to hover over the Indian army, thoſe unfortunate wretches, in whoſe boſoms the throb of liberty yet beat, had manifeſted ſymptoms of triumphant exultation. It was apprehended, therefore, that in any obſtinate engagement with the people of Delhi, they would infallibly riſe upon their captors, and join the ſtandard of their countrymen. There was another crime alſo which operated powerfully towards their deſtruction: they were *idolaters;* they were fire-worſhippers; and to root out idolaters and idolatry was one grand incentive to this expedition; though, as yet, the moſt formidable oppoſition to the triumphs of Timur had ariſen from thoſe who themſelves profeſſed the Muſſulman religion. In conformity, therefore, partly with his own ſavage diſpoſition, partly with the rigid maxims of military prudence, and partly in obedience to the ſanguinary laws of Mohammed to extirpate idolaters, theſe miſerable captives were immediately doomed to undiſtinguiſhed ſlaughter; and, in ſight of the oppoſite army, the barbarous order for their extirpation was rigorouſly carried into execution.

cution. This wanton maſſacre ſeemed no improper prelude to the tragical event that in a few days followed." P. 17.

In the next page it is obſerved:

"An unfortunate circumſtance had contributed not a little to depreſs the minds of the ſoldiery. Previouſly to their departure for Delhi, the aſtrologers having been conſulted, had declared that the aſpect of the planets was *doubtful*, if not *unfavourable*. As it was cuſtomary over all the Eaſt, and indeed continues to be ſo until this day, to regard certain ſeaſons as more auſpicious than others, and to eſteem it madneſs and impiety to attempt any great enterprize on a day not conſidered as *fortunate*, it was of the higheſt importance to overturn a prejudice ſo fatally imbibed, and from ſuch high authority. It was on this occaſion that the mighty ſoul of Timur broke through the fetters of that ſuperſtition by which it was too generally bound. He ſummoned the aſtrologers into his preſence, and publicly informed them, in an authoritative tone, that fortune did not depend on the ſtars, but on the Creator of the hoſt of heaven; that when, by an exertion of thoſe intellectual powers which the Almighty had beſtowed upon him, he had once formed his deſigns with proper attention to the dictates of cautious wiſdom, he would undauntedly purſue the object in view, nor delay one moment the execution of his ſchemes to wait the precarious ſanction of a ſeaſon by vulgar prejudice eſteemed fortunate. To ſhew, however, his reſpect to the oracles of religion, before the whole aſſembled army, he raiſed on high the ſacred volume of the Koran; and, either by chance or deſign, opened on a paſſage that inſured the faithful of victory, and at once fired their deſponding ſouls with the moſt ſanguine hopes of ſucceſs." P. 18.

This dreadful and ſanguinary irruption of Timur by no means had the effect of ſecuring the throne of India to the poſterity of the conqueror. A nominal dependence, and a ſmall tribute from the Mohammedan princes who afterwards reigned at Delhi, were all the reſult of this devaſtating viſit to its upper provinces. Thoſe princes, indeed, were enabled, by the convulſions conſequent on ſo calamitous an event, to uſurp the government; and were often glad to make uſe of the formidable *name* of the Mogul ſovereign, whoſe vicegerents they pretended to be, to give a ſanction to their unjuſt decrees, and awe their rivals in arms; but no *permanent* Mogul dynaſty commenced its reign over India, "till nearly a century and a half had elapſed, when the Emperor, Humaioon, on the expulſion of the ſecond Afghan race of kings of Delhi, aſcended in tranquillity its vacant throne." The great Akber was the ſon of this prince, and with his life, and that of his ſon Jehanguire, who died early in the ſeventeenth century, the portion of Indian Hiſtory, here preſented to the public, terminates. There conſequently remains, for the fourth, and final ſection, the detail of the events of nearly two centuries more, to bring

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the hiſtory down to its profeſſed boundary, the year 1800; apparently a very contracted ſpace for ſuch a variety of important incidents as aroſe within that eventful period. Mr. M. however, profeſſes only to arrange in a regular hiſtorical ſeries, and give in his work the leading facts and diſtinguiſhing features of each ſucceſſive reign, referring, as he proceeds, for minute details, if wanted, to thoſe authentic ſources, now, from the frequency of eaſtern publications in the hands of moſt Indian ſcholars, whence he himſelf has, in a great meaſure, deduced the current of his narration.

To preſerve the chain of hiſtorical connection between the head, and the branches of the Mogul dynaſty, once ſo celebrated in Hindoſtan, Mr. M. devotes a few pages to the hiſtory of that family in the intermediate ſtate, between the invaſion of Timur, and the new irruption of his deſcendant BABER. This particular portion will not be found unintereſting, though ſome critics may not think it ſo immediately relevant. It is contained in about twenty pages (from p. 32 to p. 50) and he concludes the rapid ſketch, at the cloſe of the life of Abuſaid, with the following paſſage, written rather in a florid ſtyle, but which, perhaps, in an Oriental Hiſtory, may be the more readily excuſed.

"With Abuſaid expired the glory of the mighty empire of Timur, eſtabliſhed in Great Tartary: an empire, which, in its full meridian and animated by the ſoul of its great founder, eclipſed all (excepting perhaps that of Gengis Khan) that the world had ever beheld; extending far as the river Ganges to the eaſt, and to the Archipelago on the weſt. The ſymbol diſplayed on its banners, the SUN RISING ON THE BACK OF A RECUMBENT LION, had long blazed in every region of terrified Aſia. It now haſtened rapidly to its decline; yet, in the very evening of its final extinction it diffuſed a beam of bright though tranſient effulgence, over the political horizon, and the nations of the eaſt bowed to its ſetting, ſcarcely leſs than to its riſing ray. But it declined at Samarcand, only to riſe with renovated ſplendour at Delhi. A ſpark of the genius of Timur yet remained to animate to glory another great branch of his poſterity, and, in the remote regions of that empire, from the aſhes of the old, to form a new government equal in renown, if not in extent, to the former." P. 45.

Conſiderable pains ſeem to have been taken in the account of the life and actions of the great AKBER, in whoſe reign, and by whoſe command, was written the well known AYEEN AKBERY. We have only room for the character drawn of him by the pen of the author, which is in his moſt correct manner.

"Akber may be juſtly ranked in fame with the greateſt legiſlators and heroes of antiquity. His perſonal valour and preſence of mind, upon all occaſions, were aſtoniſhing. With one vigorous arm he repelled

pelled the barbarians of the north, and with the other, conquered the war-trained mountaineers of the ſouth. The Khan of Uzbek Tartary trembled on his throne at the name of Akber; the determined race of Rajapouts bowed before him; and the ſovereigns of Viſiapore and Golconda exhauſted their treaſures to appeaſe his reſentment. His generoſity and clemency were alike unbounded. To him may be attributed the glory of eſtabliſhing on the firm baſis of united wiſdom and equity, that mighty empire, of which Baber laid the foundation in Hindoſtan; which Humaioon extended, but which it was left to himſelf to perfect.

"In civil and domeſtic concerns he was a bright exemplar to all the potentates of the earth. The Ayeen Akbery contains the nobleſt inſtitutes ever promulged for the government of an Aſiatic empire, and at the ſame time abounds with the moſt enlarged and liberal ſentiments in religion and morals, at a period, and in a country, in which the former was polluted by the baſeſt ſuperſtition, and the latter had become almoſt an empty name. The profeſſor of Mohammediſm, while he ſhuddered at the conſequence of an omitted ablution, ſcrupled not to commit acts of the moſt ſanguinary atrocity; and wallowed in all the turpitude of inceſtuous and unnatural luſt. Inſtead of exterminating, with the remorſeleſs fury of his bigotted predeceſſors, the race of patient and timid Hindoos, trampling to the earth their beloved idols, the ſymbols of the attributes of God, and plundering and burning their auguſt and venerable ſhrines, Akber nobly and wiſely extended to them the tolerating ſyſtem of their own benevolent creed; gave inviolable ſecurity to their perſons, and unſhaken ſtability to their property. He was alſo, in a high degree, the friend and patron of letters and genius, of which Abul Fazil and many other learned men, careſſed and penſioned at his court, are illuſtrious proofs. He ardently encouraged commerce both domeſtic and foreign; and, if we may believe the Portugueze hiſtorians, he not only allowed the merchants of their nation, ſettled at Agra, moſt extenſive immunities, but built them a church in that city. In Fraſer's more authentic publication may be ſeen the tranſlation of a very curious letter from this monarch to the king of Portugal, dated A. H. 990, or A. D. 1582, in which he requeſts of him to ſend him an Arabic or Perſian tranſlation of the ſcriptures, and with it proper perſons to explain its genuine principles. That this letter, as Fraſer hints, never went further than Goa, is a circumſtance, on many accounts, greatly to be lamented. In ſhort, the hiſtory of Aſia ſcarcely exhibits a parallel to Akber, either in the extent and grandeur of his deſigns, the vigour and wiſdom of his counſels, his moderation in peace, or his ſucceſs and glory in war. The verdure of the double laurel which he obtained in the field of ſcience and arms ſtill blooms with unfading luſtre; a luſtre that illumines, though it can no longer animate, the fallen deſcendants of the great Timur." P. 188.

The ſubſequent life of Jehanguire, and the account of his attachment to the beautiful Nourmahal, afford a ſtriking view of the voluptuous indulgencies of an Aſiatic court, as well as of ſome of the thorns that are ſometimes planted in an Aſiatic

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crown. It exhibits a perfect contraſt to the life of Akber, as unfortunately do thoſe of moſt of his ſucceſſors. Mr. M. here pauſes, to detail the hiſtory of the European ſettlers on the ſhores of India; and Chapter 1. of his fifth Book, is devoted to that of the Portugueze diſcoveries and ſettlements in Africa and Aſia. He takes a conciſe, but impreſſive, view of the gradual growth and progreſs of their power and ſplendid eſtabliſhments in the eaſtern hemiſphere; he diſplays the ſtern virtue and undaunted bravery by which a Gama and an Albuquerque, in that region of Aſia, attained to the ſummit of human greatneſs and glory, and the vices and follies that gradually brought on firſt the decline, and, finally, the ſubverſion of their coloſſal empire in the eaſt. It is a ſalutary and awful leſſon; it is a picture well drawn, and ſtrongly coloured. Hiſtory is never better employed, than when ſhe holds up the mirror to guilt, and ſhows to avarice and ambition, the terrible conſequences of exceſſes equally hoſtile to the true intereſts of commerce, and deſtructive of the power of all government.

ART. XII. *An Hiſtorical Review of the State of Ireland, &c.*

(Continued from p. 36.)

WE have now come to the "third part" of our ſtrictures on Mr. Plowden's work. In the ſecond part we have ſhown, that the various efforts made by * "Catholic Ireland", from the Revolution to the cloſe of the reign of George II. to foment rebellions, were defeated by the vigilance and activity of the Iriſh governments; or, as Mr. P. would perhaps expreſs it, by "that *foreign* aſcendancy, whether Engliſh or Proteſtant". During this period, a very large ſtanding army,

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* We have adopted throughout *this phraſe* of Mr. Plowden's; and by it we mean, the bulk of the Roman Catholics of Ireland; but in theſe, we do not include thoſe of the Catholic nobility and gentry, whoſe advantages of education, whoſe ſtake in that country, and approved loyalty make it impoſſible for the moſt malicious to charge us with the folly or falſehood of including them in thoſe cenſures which, in purſuit of truth and fair hiſtorical repreſentation, we have been obliged to caſt upon the great maſs of the Catholic perſuaſion in Ireland. We reſpect the religious opinions of every order of Britiſh ſubjects; and we are here conſidering the Catholic religion rather as a political than a religious ſyſtem.

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a Proteſtant militia*, and a code of rigorous laws, kept Catholic Ireland in ſullen obedience. Since the acceſſion of his Gracious Majeſty George III. a very material alteration has taken place in the ſyſtem of policy adopted towards that kingdom.

During this period, what has been called the conciliatory, but which, in our opinion, may more properly be ſtyled the conceding ſyſtem has been tried. It was fondly expected, that the removal of civil and religious diſabilities would have cordially reconciled "Catholic Ireland" to the throne and the Proteſtant government. Nearly thirty years have elapſed ſince this experiment has been tried and perſevered in. With what ſucceſs, we ſhall have ſome opportunities of obſerving, in the courſe of this part of our ſtrictures.

The part of Mr. Plowden's Hiſtorical Review of the State of Ireland now before us, is a notable example of that ſpecies of induſtry called "book-making": the author of "the Critical Hiſtory of England" (an old but admirable work) ſpeaking of the manner in which hiſtories were compiled (not written) in his time, obſerves, "far from having opportunities or credit enough to procure authentic manuſcripts, moſt of our modern *hiſtory-writers* content themſelves with the copies of common records, gazettes, newſpapers, pamphlets; ſtuffing their pieces with long ſpeeches in Parliament, votes of the Houſe of Commons, and even Proclamations: ſome have copied theſe noble materials *verbatim*, as will be found in the laſt reigns of the "Complete Hiſtory", than which, nothing can be more incomplete." We may, with a ſlight alteration, alſo apply to the work before us, the epigram made on the writer of long epitaphs.

"Friend, in your *Hiſtory*, I'm griev'd
So very much is ſaid;
One half will never be believ'd,
The other never read."

† In the beginning of this *ſketch* of the reign of George III. (ſo Mr. Plowden is pleaſed to ſtyle thirteen hundred and ſeventy-ſix pages of his work, and five hundred of Appendix, Contents and Index not included) he introduces to the acquaintance of his readers the Iriſh White-boys, a Popiſh ban-

* Story, in his Hiſtory of the Civil Wars of Ireland, laſt page, ſays, that even in King William's reign, the Proteſtant militia of Ireland amounted to 40,000 men.

† Hiſtorical Review, p. 337.

ditti, who, at the commencement of this reign, under pretence of redreſſing grievances, tythes, &c. &c. &c. were confederated for the purpoſes of treaſon and rebellion; though, according to a Dr. Campbell, whom Mr. Plowden quotes*, "they were aſſerting the rights of nature by nocturnal inſurrection"; and who, in order to aſſert "the rights of nature", murdered a number of tythe-proctors; cut out the tongues of others; buried ſome up to their chins, in holes in the earth, filled up with furze; made others ride *bare-breeched* upon quickſet brambles; and put none to death without firſt giving them a ſpecimen of this moſt effectual mode of "aſſerting the rights of nature". Mr. Plowden takes great pains to juſtify theſe aſſerters of nature's rights, and even brings in † Tacitus to aſſiſt him; in whoſe account of the ancient Germans he has found *ſome* reſemblance to the Iriſh White-boys.

Were we to give credit to his Hiſtorical Review, a murrain among the cattle in Holſtein, which, ſomehow or other, was introduced into Ireland; together with the high price of beef, butter, and cheeſe, and the avarice of monopolizers; with the practice of converting tillage lands into paſturage; ‡ "turned adrift this *forlorn peaſantry*", who harboured not a ſentiment of diſaffection to the government, but continued *to riot* (for nearly thirty years) as our common people have ſometimes done (for a week or ſo) on account of the high price of proviſions.

We muſt however inform our readers, that the ſouthern part of Ireland called Munſter, which was the ſcene of theſe *riots*, was then, and the greater part of it ſtill continues to be, a country of paſturage, from which our navy is ſupplied with proviſions, &c. and next, that the food of the Iriſh peaſant was, at *that* time, potatoes and milk; the former of which, he raiſed in a ſmall piece of ground attached to his *cabin*, called his *con-acre;* and his cow was ſubſiſted on his landlord's ground, or the adjoining common; no attempts to enclose which, were then made in Ireland.

One of the moſt active fomenters of theſe *riots* was a prieſt, called Father Nicholas Sheehy, who, having been tried in the Court of King's Bench in Ireland, and acquitted, for want of ſufficient evidence, returned to the South; and, emboldened by his eſcape, continued his treaſonable practices, without that reſerve and caution which he had at firſt adopted.

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* Hiſtorical Review, note to p. 339. † Ibid.
‡ P. 336 et ſequentes.

He was therefore a ſecond time apprehended, was tried at the aſſizes of Clonmel, found guilty upon the cleareſt evidence, and executed accordingly. Thoſe who in ſecret had abetted his practices, were ſo incenſed at the loſs of their moſt uſeful agitator, that every art was made uſe of by them to vilify the jury, the Judge, and the government; and, by the knaves of his party, he was repreſented to the fools of it, as a martyr to the Catholic cauſe; exactly in the ſame manner as, in the year 1798, a moſt active United Iriſhman in the North, of the name of Orr, who was tried before the * Chief Baron of the Iriſh Exchequer, and found guilty upon the moſt ſatisfactory evidence, was ſtyled "the murdered Orr"; and the reſpectable * Judge who tried him having, in conſequence of his evident guilt, refuſed to recommend him to mercy, was maligned (as well as the Jurymen who found him guilty) by every falſehood which the ingenuity of treaſon could deviſe†. Mr. Plowden inſiſts upon the innocence of this Father Sheehy, whom he moſt unwarrantably repreſents as "a † victim", ſelected "to anſwer the views of thoſe who, from their own *private ends*, connived at and fomented theſe tumults". P. 340. Could it have ſerved the intereſts of the Proteſtant clergyman to be deprived of his tythes? Or could it have anſwered the views of the Proteſtant landlord to have his rents lowered? Two of the avowed objects of theſe inſurgents. Though *we are aware*, that Mr. P. has received all his information relative to "Catholic Ireland" from the moſt polluted ſources, we cannot help expreſſing our ſurpriſe, that he ſhould have given credit to the groſs calumnies which have been reported to him.

Now to prove the guilt of this father Sheehy, and the real objects and principal inſtigators of this White-boy rebellion, we can refer to legal evidence taken upon oath; which our readers will doubtleſs agree to be more worthy of reliance than Mr. Plowden's authorities, namely, the aforeſaid Dr. Campbell, Exſhaw's Gentleman's Magazine, and his own *private* information, or even Mr. A. Young. Theſe teſtimonies and depoſitions are taken upon oath, and now extant in the Crown Office, Ireland; extracts from which will ſpeedily be publiſhed.

The White-boys firſt made their appearance, and aſſumed their appellation, in 1759; when M. Conflans, and the other French fleets, were expected with troops on the coaſt of Ire-

* Lord Avonmore.

† The wretched beings of the lower orders whom they ſeduced were conſigned to their fate without remorſe or feeling.

land. Upon the failure of that great expedition, they continued quiet for ſome time: in 1762, in conſequence of an expected invaſion from France, they appeared again in great force: upon the peace with France, theſe tumults ceaſed: they were revived, in all their fury, in 1784; then in 1787; and again in 1789, previous to the agitation of the Catholic queſtion; at which period, they *framed and adminiſtered the following oath of allegiance.* "We are bound to his Majeſty, King George III. and his ſucceſſors to the crown; *ſo for the preſent year* 1789, we promiſe faithfully the ſame obedience, and alſo *whilſt we live ſubject to the ſame government**.

The White-boy inſurrection of 1784, when at its height, was put an end to by † "the loyal and vigorous efforts of Dr. Troy, then the Roman Catholic Biſhop of Oſſory, and the clergy of his dioceſe; for which ſucceſsful exertions, he received the moſt ſatisfactory acknowledgments from the government", as Mr. Plowden informs us. In all the various inſurrections in Ireland, of White-boys and Right-boys, Hearts of Oak and Hearts of Steel, Defenders and United Iriſhmen, &c. &c. under ſome plauſible and popular grievance, the ſecret deſign and real object have been always concealed; and while the rabble and their inferior leaders have ſhown themſelves, the principal contrivers and fomenters have kept themſelves concealed, and generally have eſcaped detection and juſtice.

We return to Mr. Plowden's Hiſtorical Review. We find, from p. 348 to p. 425, a philippic againſt the effects of "the monopolizing ſyſtem of oligarchy", and an account of the ſtruggles of the Iriſh *patriots* againſt "Engliſh intereſt" and "Engliſh aſcendancy". As to the firſt, we pretend not to defend its abuſes; and we rejoice that, by a legiſlative union, an end has been put to the domineering influence of particular families; which was often exerted for the purpoſes of family aggrandizement, rather than the ſubſtantial intereſts of the ſtate. We muſt, however, at the ſame time obſerve, that, as this domineering influence was never made one of the ſpecific pretences of rebellion, we conclude, that however

* Sir Richard Muſgrave, in the firſt volume of his third edition of his Hiſtory of the different Rebellions in Ireland, ſtates, that Mr. Conway, an Iriſh Roman Catholic gentleman, reſident at Paris, used to remit money to the White-boys, on the part, and by order, of the French government, ſoon after their firſt organization; and that ſome Catholic merchants of the province of Munſter, who received and diſtributed it, were afterwards members of the Catholic Committee of 1792.

† Hiſt. Review, vol. ii. p. 170.

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hungry patriots might have been provoked at the uſe ſometimes made of this intereſt, the body of the people was no ways oppreſſed by it; nay, ſome of thoſe noblemen who had the largeſt ſhare of this "oligarchic influence" were the beſt landlords, and the moſt popular characters in their ſeveral counties.

With reſpect to the ſucceſsful ſtruggles made by the *patriots* againſt the "Engliſh intereſt and aſcendancy", we ſhall here give the late Lord Clare's opinion of the effects of the exertions of *later patriots* againſt it, ſo applicable to their predeceſſors.

"But, fatally for the peace of Ireland, from the year 1782 to this hour (March 13, 1793) the policy of men, who call themſelves the friends of the people, has been, to make Ireland a ſcene of embarraſſment to the Britiſh government, and to loſe no opportunity which they could embrace to foment jealouſies and diſunion between this country and Great Britain. The policy has been, upon every occaſion, to hold up Great Britain to the people as their natural enemy and rival, and to teach them to believe, that the general intereſts of the empire muſt, in every inſtance, be ſacrificed to the local advantages of Ireland; till at length they have raiſed a general outcry againſt Engliſh influence and Engliſh connection."

Mute is now that voice which, in the councils of Ireland, ſo often predicted the fatal conſequences of party ſtruggles, popular encroachments, and miniſterial timidity. Lord Clare is no more—but he has left to poſterity an invaluable legacy, in his opinions of the cauſes of the convulſions of Ireland. That great man, when living, was maligned by the knaves and dupes of faction; the eyes of many of the latter have been ſince opened, and at length they have diſcovered the extent of his political ſagacity.

We ſhall paſs over Mr. Plowden's comments and ſarcaſms upon Lord Townſend's adminiſtration, in p. 418. The anniverſary of this nobleman's birth-day is ſtill celebrated with enthuſiaſm in Ireland*. We cannot ſtop to follow this writer through his minutiæ of public accounts, newſpapers, newswriters, Dr. Lucas, &c. &c. Lord Townſend's adminiſtration was extremely lenient to the Catholics of Ireland, and highly popular with all parties in that country. He was ſuc-

* In Lord Townſend's adminiſtration, the Octennial Bill paſſed; previous to which, Parliaments in Ireland continued during a whole reign without a new election. Lord Townſend was alſo the firſt Viceroy who made Ireland his conſtant reſidence; his predeceſſors having generally committed the government to Lords Juſtices, during their abſence in England.

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ceeded by Lord Harcourt, during whoſe government " was opened (as Mr. P. expreſſes it, p. 425) the door of civil liberty, through which the great body of the Iriſh Catholics were afterwards admitted to the rights of ſubjects." And leſt his Iriſh readers ſhould make their own reflections upon the motive for " opening this door", he adds, " true it is, that the Britiſh miniſtry began at this time to be alarmed at the too well-grounded diſcontents of the King's American ſubjects: the *conſtitutional maxim, no repreſentation, no taxation*, was fully conſidered, *and carried into action*, on the other ſide of the Atlantic". P. 425. We muſt inform our readers, that by the " door then opened", this writer alludes to two Bills; one for ſecuring money lent by Iriſh Catholics on mortgages; and another to enable them, under certain proviſions, to take long leaſes; which meaſures were both the ſpontaneous acts of a liberal government, which had no reaſon at that time to be intimidated by the example of America; becauſe that party in Ireland which poſſeſſed the whole power of the ſtate, civil and military, was not only able and willing to ſuppreſs any ſymptoms of rebellion in their country, but was alſo very averſe from theſe meaſures; inſomuch ſo, that it required great management by the government to induce them to conſent to paſs theſe Bills.

It is obſervable enough, that all the Catholic writers have taken great pains to convince " Catholic Ireland", that the *conceſſions* (as they at firſt, and *rights* as they have ſince denominated them) which have been, from time to time, obtained, were owing, not to " the open and unſuſpecting liberality" of Parliaments, but (to uſe a modern, and not very intelligible phraſe) * " to the wiſdom and *unbroken* energies" of the Iriſh Roman Catholics themſelves. Nor can it have eſcaped the obſervation of thoſe at all acquainted with the writings of ſome of that party, how often the example of American independence has been held up to the people of " Catholic Ireland".

In Mr. Plowden's *ſketch* of Lord Harcourt's adminiſtration, we have a long account (p. 434, et ſeqq.) of the proceedings of the Iriſh Parliament, culled from their journals, and the newſpapers of the day; with a *ſketch* of the debates in our Parliament in 1776; in which an haſty expreſſion (p. 445) of Mr. Temple Luttrell, uttered in the heat of debate, is tri-

* An expreſſion made uſe of in a pamphlet publiſhed in Dublin, in Auguſt, 1803, by a Catholic barriſter, entitled " An Iriſh Catholic's Advice", &c. &c.

umphantly

umphantly given, as a faithful picture of the ſtate of Ireland at that time. Mr. P. has alſo given his readers, in this part of his work, a moſt moving *epiſode* of increaſing debts, declining trade, *tontines*, taxes, patriots, and *concordatum*, &c. &c. &c. Nevertheleſs, as Ireland was ſo tranquil as to enable the government to ſpare four thouſand of the troops (p. 432) on the Iriſh eſtabliſhment for the ſervice in America, we muſt take it for granted, without going into ſuch minute details, that *matters were not then quite ſo bad in Ireland* as he has repreſented them. Lord Buckinghamſhire ſucceeded Lord Harcourt; and Mr. P. informs us (p. 446) that "he went over the *ſworn* ſervant of the Britiſh Cabinet; and, *leſt there ſhould be a knot in the thread of ſubſerviency*, he took over his attorney, Mr. Heron, as his ſecretary." "His Lordſhip found that country in a moſt deplorable ſtate of diſtreſs"; (p. 447) that is, Lord Buckinghamſhire found a great number of the working people deprived of employment by our rupture with America, who were at length relieved by public charity. Ireland, particularly the northern part of it, ſuffered extremely by this war with our coloniſts; America being then a great market for the ſale of Iriſh produce: but, as the Parliament of that country did not declare the war, but only followed the meaſures of Great Britain, it is not anſwerable for the temporary evils which it produced in Ireland. To the adminiſtration of Lord North, Mr. P. gives (p. 458) "the *ſingular and important* credit, of having firſt opened the door of liberality (this is his beſt metaphor, and he repeats it on all occaſions) to the Iriſh Roman Catholics".

"It may have been uniformly remarked", he obſerves, "that the Iriſh have been ever profuſely grateful for every thing, which had come to them in the form of conceſſion and kindneſs". Now, if by *the Iriſh* he means the Roman Catholics of that country, we flatly contradict this aſſertion; and the events every year ſince the conceſſions, and particularly 1798, amply juſtify our denial.

Mr. Plowden informs us,

"that on the eleventh day after the Britiſh Houſe of Commons had given the liberal example of univerſal aſſent to Sir George Saville's motion in favour of the Roman Catholics of England; Mr. Gardener, on the 25th of May, 1778, made a motion in the Iriſh Houſe of Commons, and the queſtion being put, that leave be given to bring in heads of a Bill for the Relief of his Majeſty's Roman Catholic Subjects of Ireland, Mr. Gardiner, the Honourable Barry Barry, and Mr. Yelverton, were ordered to prepare and bring in the ſame." Hiſt. Review, p. 463.

This Bill, to enable them to take leaſes for 999 years, and to aboliſh all the penal ſtatutes againſt diſcoveries, was accordingly

cordingly *brought in* by Mr. Gardener, afterwards created Lord Mountjoy, and ſince ſlain at the battle of New-Roſs, in 1798, by the united Catholic army; and it *was ſeconded* by Mr. O'Neal, afterwards created Lord O'Neal, and ſince murdered, in 1798, at Antrim, by a party of Catholic emancipators. This Bill was paſſed after great oppoſition, not from the government, but from the independent country-party in parliament; and, to avail ourſelves of Mr. Plowden's expreſſions,

" it gave them (the Catholics) a footing to ſtand upon, in every future application to the crown or parliament, for a full participation of every bleſſing of our free conſtitution; it was the more welcome to the Catholics from their conviction, that a breach once made in that *penal fortreſs*, it was impoſſible that it ſhould hold out much longer." P. 464.

If we *miſtake not*, however, they then, by a public declaration, profeſſed that they were fully ſatisfied by this (to them at that time great) conceſſion.

We next find the Britiſh Parliament " taking an active part and intereſt in the concerns of Ireland", which Mr. P. admits, " did credit to her liberal ſympathy for her ſiſter kingdom". P. 477. This is the *firſt* teſtimony of approbation which we have met with in this work; and we are happy to have it to quote, as it has been moſt diſagreeable to us to be obliged to notice the want of candour and of fair repreſentation, which we have hitherto all along obſerved.

" A free trade" (p. 506) became, in 1779, the next popular meaſure in Ireland; the great manufacturing towns of our country took the alarm, without any foundation, and the miniſter of England was obliged, for a ſhort time, to poſtpone the meaſure. The Iriſh *patriots*, enraged that the haſte of Lord North did not keep pace with their own precipitation, exerted all their eloquence againſt " Engliſh intereſt and miniſterial duplicity." The more temperate and wiſe part of the Iriſh Houſe of Commons counteracted, in ſome meaſure, theſe impreſſions by their good ſenſe and perſuaſive reaſoning*.

Ireland next arrayed her volunteers; and by the formidable aſpect which ſhe preſented to the enemy, deterred France from attempting an invaſion. So far we muſt applaud; but when ſoon after we find the Iriſh patriots in the moment of arduous foreign war and colonial rebellion ungenerouſly, Mr. Plowden ſays, " *ſpiritedly* reſolving upon a ſix-months money bill, with a view of obtaining an enlargement of their com-

* None more effectually than the Right Hon. Hely Hutchinſon, merce",

merce", (p. 506) our admiration of their conduct is somewhat leſſened.

In 1780, Ireland obtained her free trade; we are ſatisfied to let that part of Mr. Plowden's work, from p. 477 to p. 559. paſs without further comment. He has given the debates in parliament upon the free trade of Ireland on both ſides, though with evident partiality to the popular party; our readers, therefore, who wiſh for information upon this ſubject, may turn to his work, and form their own concluſions of the manner in which that meaſure was carried, and make their own reflections upon the conduct of all the parties.

None rejoiced more than we did at the extenſion of Iriſh commerce; and, we truſt, that every meaſure will be in future purſued to increaſe the trade*, induſtry, and civilization of Ireland, and to give content (if poſſible) to all our fellow-ſubjects in that kingdom. Great Britain muſt, however, keep power in her own hands, until Ireland, by the cordial attachment of all her inhabitants to the throne and government, ſhall ceaſe to give her any more fears upon that head, than our countrymen of Yorkſhire or Cornwall. *Should that happy period never arrive*, we have yet the conſolation to reflect, that the moſt reſpectable, intelligent, and *powerful* part of the Iriſh nation are, at this moment, in ſentiment and affection, "the brethren of Britons." May it be our care to cheriſh thoſe brethren, and bring over to them every convert in our power! Let ſhallow declaimers and deſigning politicians *now* make what repreſentations they pleaſe, *that party* has been hitherto the great bond of connexion between the two kingdoms, and is at this day the only ſubſtantial link of the Union.

"On the 31ſt of January, 1782, we find Mr. Gardiner again moving for leave to bring in heads of a Bill for the relief of his Majeſty's Roman Catholic ſubjects of Ireland" (p. 559) on the 5th of February (p. 561) the Bill was introduced by Mr. Dillon (Mr. Gardiner being indiſpoſed). Two of the Acts prepared by Mr. Gardiner were paſſed†, the firſt enabled Roman Catholics to take, hold, and diſpoſe of lands and hereditaments in the ſame manner as Proteſtants; and removed ſeveral penalties from Catholic clergymen, on taking the oath of

* Appendix, No.

† Mr. Gardiner's original Bill was divided into three Bills: the two firſt were paſſed; the third, "a Bill to enable Proteſtants and Catholics to intermarry," was negatived by a majority of eight; ſee Hiſt. Review, p. 581. It was afterwards, in 1792, paſſed into a law, and Proteſtants and Catholics now may and frequently do intermarry.

allegiance,

allegiance, preſcribed by the Iriſh Acts of 13 and 14 Geo. III. " and repealed the moſt noxious parts of the Acts of Ann, Geo. I. and Geo. II." The ſecond Bill was for the education of the Catholics, it was entitled " an Act to allow perſons profeſſing the Popiſh religion to teach ſchools in this kingdom, and for the regulating the education of Papiſts, and alſo to repeal parts of certain laws relative to the guardianſhip of their children". P. 580.

Upon this ſubject, we find the following very invidious obſervation made in this work; " fortunately for the Catholics, Mr. Gardiner's Bill was not made a government queſtion, or otherwiſe it would have fallen before the ſame majority, that had uniformly oppoſed every conſtitutional queſtion that had been brought before them". P. 573.

This inſinuation we do not heſitate to pronounce as illiberal, as it is without foundation; the ſpirit of conceſſion to the Iriſh Catholics, and of demand upon Great Britain, having at that time pervaded every claſs of men, from the ſervant of government to the independent volunteer of Ireland.

In the courſe of the debates at this period in the Iriſh Houſe of Commons upon Mr. Gardiner's Bill, we find Mr. Grattan expreſſing his opinion, " that ſo long as the penal code remains, *we* never can be a great nation; the penal code is the ſhell, in which the Proteſtant power has been hatched, and now it is *become a bird*, it muſt burſt the ſhell, or periſh in it": (p. 572) and his reaſon for then making further conceſſions to the Iriſh Catholics was " as the moſt likely means of obtaining a victory over the *prejudices of Catholics*, and our own"; he gave his conſent to Mr. Gardiner's Bill, " becauſe he would not keep * *two millions* of his fellow ſubjects in a ſtate of ſlavery".

Mr. Henry Flood ſeems to have been one of that ſmall number of politicians, in whoſe mind the experience of the paſt excited ſome diſtruſt of the future.

" He had always wiſhed to emboſom the Catholics in the body of the ſtate; yet without courting praiſe on the one hand, or fearing cenſure on the other, he would deliver his free opinion on this great ſubject. Above five years ago (ſaid he) a law was paſſed, granting the

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* Hiſt. Review, p. 572. By ſome *unaccountable means* the Catholic population of Ireland has ſince that time *been doubled*; the number of people in Ireland being now, in 1803, *as we are told*, five millions; namely, four of Catholics, and one of Proteſtants. Thomas Townſhend, Eſq. in a letter publiſhed in London, in June, 1801, makes the population of Ireland *ſix* millions. Could no mode be adopted for aſcertaining the true force of this Catholic argument?

Roman

Roman Catholics infinitely leſs than was then propoſed, the day was celebrated with rejoicing, and it was thought they had reconciled every party; he was ſorry to hear gentlemen ſpeak as if nothing had been done for them. In the former laws, leaſes for years were granted to them, upon the avowed principle of reſtraining them from any influence in elections; this law went beyond toleration, it gave them a power, and tended to make a change in the ſtate. If they gave them an equal power with the Proteſtants, the preſent conſtitution could not ſurvive; though they wiſhed to extend toleration to Roman Catholics, they did not wiſh to ſhake the government; they ſhould allow them to purchaſe lands, but *ſhould carefully guard againſt their poſſeſſing any power in the ſtate.*" P. 571.

Mr. Fox, in the debate in our Houſe of Commons, in 1782, on the ſtate of Ireland, declared, "that the *inteſtine diviſions* of that country were no more; the *religious prejudices* of former ages were forgotten, and the Roman Catholics being reſtored to the rights of men and of citizens, would become *an acceſſion of ſtrength* and wealth to the empire: upon the whole he was convinced, that the Iriſh deſired nothing more ardently than proper grounds for being moſt cordially united to Great Britain; and, *he was ſure*, they would be attached to this country, *even to bigotry*".

Mr. Fox was then Miniſter of England, and no doubt this ſtateſman ſpoke ſincerely the convictions of his mind. Alas! how often are the moſt ſanguine and the beſt founded expectations of mankind diſappointed!

We muſt refer our readers to p. 564, et ſeqq. of Mr. Plowden's work, for an account of the *volunteer parliament* of Dungannon, aſſembled in February, 1782, their proceedings, reſolutions, &c. &c. and with all the reſpect due to the old volunteers, if the conduct of the Iriſh yeomanry of 1798, who, after ſaving their country, retired to their homes, without making any claims upon Great Britain, but for her admiration and her gratitude, be compared to theirs, no friend to the intereſts and tranquillity of Ireland can for a moment doubt, which of theſe armed bodies is entitled to the largeſt ſhare of applauſe from their country.

The late Lord Clare, ſpeaking of the old volunteers, among other expreſſions, makes uſe of the following: "they certainly did, upon every occaſion, where their ſervices were required, exert themſelves with effect to maintain the internal peace of their country: the gentlemen of Ireland were all in their ranks, and maintained a decided influence upon them; but I ſhall never ceaſe to think, that the appeals made to that army by the angry politicians of the day, were dangerous and ill-judged in the extreme, and that they eſtabliſhed a precedent for rebellion, which has ſince been followed up with *full ſucceſs*".

We

We learn from the whole of this part of Mr. Plowden's work, that at that period, claims on the part of Ireland, and conceſſions on the part of Great Britain, were reciprocal. Upon the change of the miniſtry, in 1782, we find Lord Carliſle reſigning his troubleſome government; and receiving an addreſs (p. 597) which the Iriſh Houſe of Commons, with *five* diſſenting voices only, had voted as a juſt tribute to his ſincere efforts to promote the welfare of that kingdom.

The Duke of Portland ſucceeded him (p. 586); his Grace was obliged to yield to the torrent, which perhaps at that time no human ingenuity could have ſtemmed. During the adminiſtration of Lord Carliſle, we find a great Iriſh patriot, then in oppoſition to government, declaring

" that Ireland was in ſtrength—She had acquired that ſtrength by the weakneſs of Britain; for Ireland was ſaved, when America was loſt; when England conquered, Ireland was coerced; when ſhe was defeated, Ireland was relieved; and when Charles-Town was taken, the Mutiny and Sugar Bills were altered. Have you not, all of you, when you heard of a defeat, at the ſame moment *condoled* with England, and *congratulated* Ireland?" P. 574.

Mr. Plowden does not tell his reader whether this queſtion was anſwered in the affirmative.

If ſuch was the temper of the Iriſh nation at that day, we may bluſh, but we need not wonder, that his Majeſty was obliged to ſend a meſſage to the parliament of that kingdom*, and to offer them a *carte blanche*, that they might fill it up with Iriſh grievances. We find Mr. Grattan ſupporting adminiſtration, and undertaking to become the tranquillizer of Ireland: the ſimple repeal, &c. &c. was paſſed; a hint thrown out in the debate (p. 609) of the utility of eſtabliſhing dock-yards in Ireland; and a *final adjuſtment* upon all conſtitutional points between the two kingdoms was completed; the whole nation, with the exception of *two individuals* † only, being perfectly convinced, " that there could no longer exiſt any conſtitutional queſtion between the two nations, that can diſturb their mutual tranquillity". P. 610. A ſolemn thankſgiving was next offered to heaven; and all was union, cordial affection, and gratitude in Ireland.—*Pro hac vice.*

" But it appears", obſerves Mr. Plowden, " as if it had been *written in the book of fate*‡, that the felicity of Ireland, whilſt inde-

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* Hiſt. Review, from p. 600 to p. 613.

† Sir S. Bradſtreet, Recorder, and Mr. Walſh.

‡ In which caſe, we muſt ſuppoſe, that the *patriots* of Ireland were choſen by fate, as the fit inſtruments for fulfilling her decrees.

pendent

pendent and ſeparate from Great Britain, ſhould be ſhort lived, precarious, and unſtable."

We accordingly find that it was ſoon diſcovered by Mr. Flood (p. 616) that ſimple repeal did not eſtabliſh the independance of Ireland; and Ireland was again thrown into a foment by Mr. Flood's diſcovery.

This gentleman and his party contended (p. 609) that a repeal of the Declaratory Act, 6 Geo. I. without a poſitive renunciation by Great Britain of the right to legiſlate for Ireland internally and externally, did not eſtabliſh the conſtitutional independence of that country; Mr. Grattan and his party inſiſted that it did, and they prevailed. *The Volunteers*, at a meeting held in Dublin, in June, 1782, declared, that a repeal of the 6th Geo. I. by the Britiſh parliament*, made in purſuance of the addreſſes, was conſidered by them a complete renunciation of all the claims contained in the ſaid ſtatute; and as ſuch they accepted it, and deemed it ſatisfactory†. So ended what Mr. Burke has called the Iriſh Revolution of 1782.

"And thus", ſaid the late Lord Clare, "was atchieved with a rapidity unexampled (in three days) and by means the moſt extraordinary, a meaſure, which was then thought to be a *final adjuſtment* of all political claims and controverſies between the two nations, and a full ſecurity for their conſtitutional connexion"‡. The parliaments of both kingdoms have, however, been ſince *twice* embroiled upon the moſt momentous queſtions, the commercial propoſitions, and the regency.

The laſt memorable event which cloſes this period of Iriſh Hiſtory, and Mr. Plowden's firſt volume, was a review of the Belfaſt volunteers, on the 31ſt of July, 1802. Mr. Plowden gives the following account

"Of this truly glorious exhibition; a volunteer encampment of nearly three thouſand men, and the volunteer garriſon of upwards of one thouſand, all completely clothed, armed, and accoutered. Anonymous papers in thouſands were diſperſed through the camp and garriſon; *every private was taught, that he was competent to legiſlate, and*

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* This meaſure of conceſſion and conciliation on the part of Great Britain, was framed on the ſenſe of the Iriſh oppoſition in parliament, who undertook to point out what would completely ſatisfy Ireland; ſee Lord Clare's Speech, 1800.

† Hiſt. Review, p. 626. The Ulſter volunteers came to the ſame reſolution, June 21. 1802.

‡ Lord Clare's Speech in 1800. This ſpeech is the ableſt epitome of the hiſtory of Iriſh rebellion that ever was, or perhaps ever will be given.

conſequently

conſequently to expreſs his ſentiments on the moſt ſpeculative points [pretty doctrines theſe!] declaration, renunciation, ſimple repeal, legal ſecurity, better ſecurity (no ſecurity was forgotten we ſuppoſe) and bill of rights were all laid before them, and they were to inſtruct their delegates on theſe points*"!

Their delegates† accordingly aſſembled on the 3d of Auguſt. In an addreſs propoſed to be made to the Reviewing General (the late Lord Charlemont) a clauſe having been inſerted of their being *fully ſatisfied*, a debate of *eleven hours* took place, and upon a diviſion, this clauſe was expunged!

"Thus", obſerves Mr. Plowden, "by the efforts and exertions of a wiſe and liberal adminiſtration, were the liberties of Ireland reſtored; Peace, Unity, and Content‡, diffuſed through a *revived* nation, and the proſperity and glory of the Britiſh empire increaſed by adding ſtrength, vigour, and felicity, to that important part of it§"!

If theſe expreſſions were merely meant as the effuſions of a poetical fancy, we might let them paſs; but when they are given to *his* readers as the ſober ſtatements of hiſtorical truth, we think it our duty to inform *ours* (though perhaps it is ſcarcely neceſſary) that ſince 1782, a ſpirit of innovation, diſturbance, diſunion, and diſcontent, has never ceaſed to prevail in Ireland.

Since 1782, which, from the the *conſequences* of the tranſactions of that year, may with ſome propriety be called the Iriſh revolution; the peace of that unfortunate kingdom has been conſtantly and fatally interrupted by the folly, intrigues, and practices of *Patriots*, Agitators, Right-boys, Peep-of-Day boys, Conventions, Aggregate bodies, Catholic committees, Tarring and Feathering committees, Defenders, Aſſaſſins, *Houghers* of men, *Houghers* of cattle, Aſſociators, Whig-clubs, Saint-James's Delegates, Exchequer-ſtreet Delegates, National congreſſes, Catholic parliaments, Emancipators, United Iriſhmen, Reformers, Revolutioniſts, Societies of Peace, and Societies of War; and the return made for "the ſtrength, vigour, and felicity", then added to Ireland, has been the deſperate effort of a very formidable party, its *aiders and abettors* to ſever that kingdom from England, and to connect it with Republican France.

(To be concluded in our next.)

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* Laſt page of firſt volume. † Ibid.

‡ He forgot, we ſuppoſe, that in the paragraph preceding, he had informed his reader, that the Belfaſt delegates had declared that they were *not content*.

§ Laſt page of firſt volume.

ART.

ART. XIII. *Helps to Compoſition, or Five Hundred Skeletons of Sermons; ſeveral being the Subſtance of Sermons preached before the Univerſity. By the Rev. Charles Simeon, M. A. Fellow of King's College, Cambridge. Two Volumes.* Large 8vo. 689 and 783 pp. 1l. 16s. Matthews. 1802.

A FORMER publication of this kind, by the ſame author, appeared as an Appendix to Claude's Eſſay on the Compoſition of a Sermon, republiſhed by Mr. Simeon, and noticed by us, in our ninth volume, p. 435. We then commended, as they merited, the utility of the work, and the diligence of the author; but we doubted reſpecting that attachment to Methodiſm of which we knew he had been accuſed. This, however, he has now thought proper to avow; referring, as the exact ſtatement of his opinions, to what he is pleaſed to ſtyle "that *invaluable book*, entitled the true Churchmen aſcertained, by the Rev. Mr. Overton of York". As it has been very fully ſhown by us, in an extended review of that book, that we materially differ from Mr. O. in his interpretation of the doctrines of our church; it will not be ſuppoſed, that we mean to recommend Mr. Simeon's preſent publication, ſo far as it inſiſts upon the ſame opinions: but this author is evidently not of a diſputatious turn; he is not, as he ſays, "ſolicitous to bring any man to pronounce his Shibboleth;" much leſs has he any deſign to maintain a controverſy in ſupport of it". "With much deference", he adds, "he ſubmits to the public his views of ſcripture truth; and, whether they be perfectly approved or not, this he hopes to gain from all parties, *a favourable acceptance of what they do approve*, and *a candid forbearance in the points they diſapprove*". This is exactly what we are inclined to concede to ſuch an author. There is ſo much in his work which is excellent and uſeful, that we cannot feel inclined to condemn it altogether, for the ſake of the much ſmaller part which appears to us to be tainted with error.

The term of *Skeletons of Sermons* having been thought liable to objection, Mr. S. has here prefixed a new title; this, however, is of little conſequence; and theſe volumes are ſtrictly a continuation of the former, the ſketches being numbered on from thence; ſo that the preſent addition makes the whole amount ſix hundred. Our idea of the uſe of ſuch a work is this: every perſon who has been habituated to the compoſition of ſuch diſcourſes muſt have experienced, that more time is uſually loſt in fixing upon an eligible topic, than in producing

producing the ſermon, which is the reſult of that determination. In Mr. Simeon's books, a prodigious number of ſcriptural texts and topics is collected; with ſuch a view of the expanſion of each ſubject, as is readily perceived by the eye, and comprehended by the mind. Hence it becomes eaſy to determine, whether a topic be fertile or not, whether it opens to ſuch views as the preacher would wiſh to expand to his congregation. We ſhould by no means recommend a ſervile adherence to the plan which may here be found; but rather, that the perſon conſulting it, may the more exert the activity and judgment of his own mind, in deciding what may fitly be retrenched from ſuch an outline, or ſuperadded to it. For this reaſon we by no means think it an improvement in the preſent volumes, that the Skeletons are now worked up more nearly into the form and ſubſtance of Sermons, and capable, as the Preface intimates, of being read to a family even in their preſent ſtate. This may be an encouragement to indolence. We would ſtill have had real Skeletons, of which all the muſcles, blood, and animation, was to be ſupplied by the perſon who undertook to employ them.

The ſubjects in the preſent volumes are claſſed in the following manner. 1. The Types. 2. The Prophecies. 3. The Parables. 4. The Miracles. With an Appendix of Faſt and Thankſgiving Sermons. Theſe complete the firſt volume, which, as well as the ſecond, is divided into two parts. The ſecond volume contains, 5. Warnings. 6. Exhortations. 7. Promiſes. 8. Examples. With another Appendix, containing ten entire Sermons. So extenſive an arrangement of topics muſt occaſionally introduce thoſe in which the peculiar opinions of the author appear; but as the work is almoſt excluſively calculated for the clergy, to facilitate meditation, and aſſiſt invention, they will be fully competent to reject and avoid whatſoever ſhall appear to them unſound. Had the book been of a nature to circulate among thoſe whoſe opinions were leſs carefully formed, we ſhould have been more ſcrupulous in recommending that which might occaſionally lead to error. On this ground alſo it is, without doubt, that the Univerſity of Cambridge has given the ſanction of its preſs to the publication.

Mr. S. with a fertility of mind, and an exertion of application, which are truly ſingular, appears to have furniſhed all this prodigious maſs of materials from himſelf. This alſo was done by Biſhop Beveridge, in his four volumes, entitled Theſaurus Theologicus. But it has often occurred to us, that a ſimilar work, founded on the moſt approved Sermons of the Engliſh divines, would be of the higheſt uſe and value. The

matter

of a prodigious number of excellent diſcourſes might thus be compreſſed into a narrow ſpace; and the topics and arguments even of thoſe which had become obſolete in language might be employed again, in the clothing of new expreſſions, and made known to many who otherwiſe would never be acquainted with them. Such a work, judiciouſly executed, would form an ample collection of the ſoundeſt divinity, and would in many inſtances make the original diſcourſes more known, by exciting a deſire to ſee how the *Skeleton* thus preſented had been filled up, and animated by the author. Arguments of Sermons might, perhaps, in this caſe be thought a better title than either of thoſe which the preſent author has employed; and to poſſeſs the arguments of the beſt Engliſh diſcourſes compreſſed into a few volumes, would certainly be a treaſure of great value to the Chriſtian ſtudent.

BRITISH CATALOGUE.

POETRY.

ART. 14. *The Pleaſures of Nature, or the Charms of Rural Life; with other Poems. By David Carey.* 12mo. 164 pp. 4s. 6d. Vernor and Hood. 1803.

Very ſmooth and flowing verſes, conveying pleaſing images, rather add this volume to a number which this verſifying age has produced, than mark it with a ſeparate and diſtinguiſhed character. The Pleaſures of Nature are ſuch as other bards have felt and celebrated; but this poet, if his caſe be ſuch as he deſcribes in his firſt Elegy, well deſerves our ſympathy and regret.

" Ah me! few are the years that I have ſeen,
Scarce twenty ſummers have their vigour lent;
Yet few and fleeting as my days have been,
Full many a ſorrow has my boſom rent.

For I have borne the buffetings of Fate,
A wanderer ſad, by Fortune doom'd to feel
The proud man's ſcorn, the world's ungenerous hate,
And frantic Folly's perſecuting zeal.

And ſhould to-morrow ſee me lowly laid,
O'er my green grave no weeping friends will bend,
And bid the wild roſe there its beauties ſpread,
And ſoſter bid the dews of heav'n deſcend.

Though I have ſtruck the lyre, by rapture mov'd,
No Muſes round my timeleſs bier ſhall mourn,
Though I have lov'd, as never mortal lov'd,
No tearful virgins ſhall embalm my urn."

Nothing can be objected to this Elegy but rather too bold an appeal of the author to heaven upon his own innocence. His griefs he has forcibly painted there and elſewhere. We truſt, however, from ſome other Poems, that thoſe times of ſorrow paſſed away, and that the author, ſince that Elegy was written, has met with better fortune, and more proſperous days.

ART. 15. *Syr Reginalde; or, the Black Tower. A Romance of the Twelfth Century. With Tales and other Poems. By Edward Wedlake Brayley, and William Herbert.* 12mo. 168 pp. 5s. Vernor and Hood. 1803.

The joint authors of this neat little volume modeſtly decline all high claims to poetical diſtinction. "Engaged in purſuits far different to [from] thoſe of poetry, the authors of the following pages do not preſent them to the world as the brilliant coruſcations of ſuperior genius." Though it be certain, that authors in general do not wiſh to be very literally underſtood, when they make ſuch declarations, we are willing to take theſe gentlemen at their word, and truſt that they will be ſatisfied with the praiſe of ingenuity. The firſt Poem, which gives the title to the book, is the joint production of the two authors, and is written in a very unuſual mixture of metres, which has no very happy effect. The ſtory abounds in ghoſts. The remaining Poems are diſtinguiſhed by the initials of the writers. Their ſubjects are various. In ſome of them ſublimity, in ſome elegance, and in others humour is attempted; but certainly not, in any caſe, with a ſucceſs which will either immortalize this volume, nor demand a ſucceſſor to it. A ſtanza of patriotiſm will be as good a ſpecimen as we can give, for that is at leaſt ſeaſonable.

"The ſtorm comes on, the battle roars!
Britannia's ſons will never yield;
And ſee! the wide deſtruction pours,
On every foe who dar'd the field!
The fight is o'er! the charge to Britain given,
Aſcends accompliſh'd to the God of Heav'n." P. 134.

The intention of this Ode is good. The fault of it is, that it too freely preſumes to know the will of heaven, and to denounce its curſes. It bears the ſignature B. Mr. Brayley's name we have ſeen before, to a very elegant publication, entitled the Beauties of England, in which the plates are of ſingular merit. Some tolerable engravings are in this volume.

ART. 16. *The Chriſtmas Holidays, dedicated to Mrs. H. C. Combe. By Henry Whitfield, M. A. Fellow of King's College, Cambridge.* 8vo. 1s. Ginger. 1803.

A pleaſing picture is here exhibited, of the feelings of a School Boy on going home to ſpend his holidays; much novelty could not be expected

pected from ſo exhauſted a ſubject, but no one can object to have his remembrance of youthful hours thus awakened.

ART. 17. *Advice to the Adviſed, or the Philoſopher confuted, in a poetical Dialogue between William Shuttle the Weaver, Thomas Thimble the Taylor, and his Wife Peggy. By Theophilus Criſpin, a Northumbrian.* 8vo. 1s. Longman and Rees. 1803.

This is a ſucceſsful and facetious laugh at a pamphlet, called Addreſs to the Poor, by William Burdon, of which the reader may ſee an account in the Britiſh Critic, vol. xxii. p. 447. Mr. Theophilus Criſpin ſeems to have a conſiderable portion of humour, as well as of loyalty and piety.

NOVELS.

ART. 18. *The Advantages of Education, or the Hiſtory of Maria Williams. A Tale for very young Ladies. In Two Volumes. By the Author of a Goſſip's Story, a Tale of the Times, &c. Second Edition.* 12mo. Longman and Rees. 1803.

It is ſo ſeldom that a novel arrives at the honour of a ſecond impreſſion, that we may ſafely deviate, in favour of this, from our general rule of not noticing what appeared before the commencement of our work. This Tale, now obliquely avowed by Mrs. Weſt, appeared originally in 1792; and its republication ſeems to prove, that it has been diſtinguiſhed by judicious readers. Mrs. W. in a very natural and pleaſing narrative, relates the care taken by an exemplary mother in the education of an only daughter; and repreſents, not only the danger of a precipitate attachment, but the power which a well-trained mind may poſſeſs, to obliterate injudicious impreſſions, and prepare the way for thoſe that are better ſuited to reaſon and propriety. It will appear from this account, that the term *very young* ladies muſt not be too ſtrictly limited, and that the admonition is as far extended as that of other moral narratives. It is given with judgment and good ſenſe; and the obſervations of the author, on the prevalent vices and follies of the world, have the ſame originality and livelineſs which recommend the other novels that have proceeded from her pen.

ART. 19. *Village Anecdotes, or the Journal of a Year, from Sophia to Edward; with original Poems. By Mrs. Le Noir. Three Volumes.* 12mo. 10s. 6d. Vernor and Hood. 1804.

Mrs. Le Noir is the daughter of the late Mr. Chriſtopher Smart, who was alike diſtinguiſhed by his wit and his misfortunes. Of this novel, as a compoſition or ſpecimen of ingenious contrivance, we cannot ſpeak in the moſt exalted terms of praiſe; but we have no ſcruple in affirming, of the poetry which is interſperſed, that it has a great deal of merit; of which we may cite, as an example, an Ode addreſſed to a Ship going out of port. After various poetical ſurmiſes of who may be conveyed in it, the author addreſſes heaven in behalf of the veſſel;

veſſel; but, if its loſs ſhould be deſtined, ſhe thus intercedes for thoſe who ſailed in it.

" Spare, in thine ire, her gallant crew;
Spare, in their lives, their children's too,
The mother, and the wife:
The troubled deep awhile aſſuage;
Speak, and appeaſe the fearful rage
Of elemental ſtrife.

" From fell Arabia's barren ſtrands,
Her ruthleſs ſons, her burning ſands,
The veſſel far convey;
Nor let the hapleſs crew be thrown
Where gen'rous pity is unknown,
Or monſters howl for prey.

" Their tedious toils and travels o'er,
May Albion's ſnow-white cliffs once more
The weary wand'rers gain;
And each, his dangers at an end,
Recount them to the wond'ring friend
With joy, enhanc'd by former pain." Vol. i. p. 12.

MEDICINE.

ART. 20. *Practical Obſervations on Hernia; illuſtrated with Caſes. By B. Wilmer, Surgeon, in Coventry. The Second Edition enlarged.* 8vo. 98 pp. Longman and Rees. 1802.

In this new edition, beſides an account of ſome caſes which have occurred ſince the firſt publication of the pamphlet, we have a deſcription of a new mode of reducing ſtrangulated hernia; which has ſucceeded in *two* inſtances (the only inſtances in which the author has hitherto had opportunity of trying it) after all other remedies had failed. It conſiſts in " the combined effects of a ſteady and continued preſſure, by the application of metallic ſubſtances, of a colder temperature than the parts with which they come in contact. Thus a leaden weight, or a plate of iron, may be placed on the tumor, the hips of the patient being firſt raiſed to an angle of about 30 degrees; or, which perhaps would better correſpond with the form of the tumor, two or three pounds of quickſilver, tied in a ſtrong bladder. After this preſſure has been continued a few hours, the ſurgeon ſhould again endeavour to reduce the contents of the hernia."

ART. 21. *Anthropology; or the Natural Hiſtory of Man: with a Comparative View of the Structure and Functions of Animated Beings in General. By W. Blair, A. M. Surgeon of the Lock Hoſpital and Aſylum, &c. &c.* 8vo. 163 pp. 5s. Longman and Rees. 1803.

This ſyllabus of lectures, on the ſtructure and œconomy of man and other animated beings, ſhows that the author is well verſed in anatomy

and phyſiology. He gives a view of the ſeveral ſyſtems of the moſt celebrated modern writers on this ſubject; whoſe arrangement, with ſome variations, he adopts. Mr. Blair's manner of writing and lecturing is calculated to inſtruct, eaſily and agreeably, not only thoſe who are educated in his own profeſſion, but certain diſtinctions of artiſts (ſuch as painters, engravers, and ſculptors) as well as amateurs in general. The concluding part of this ſyllabus relates to phyſiognomy and craniognomy; two branches of ſtudy, in which, if there is little that is certain, there is, it cannot be diſputed, much that is amuſing.

DIVINITY.

ART. 22. *The Sentiments proper to the preſent Criſis. A Sermon, preached at Bridge Street, Briſtol, October 19, 1803, being the Day appointed for a General Faſt. By Robert Hall. Second Edition, with Corrections and Additions.* 8vo. 78 pp. 2s. Button. 1804.

Mr. R. Hall is a Baptiſt Miniſter, long diſtinguiſhed for his talents, eloquence, and piety. Two admirable diſcourſes from him have before claimed our attention, and received our warm approbation*; nor is this third at all deficient in the merits by which they were characterized. Mr. H. viewing the circumſtances of the preſent Criſis with a ſagacious eye, begins, by declaring what conduct is improper in it. Among theſe inſtances he notes, the referring events only to ſecondary cauſes, the relying on human means alone, and the wanton cenſuring of our rulers. He ſpeaks preciſely our opinion, when he ſays, that "at this ſeaſon eſpecially, when unanimity is ſo requiſite, every endeavour to excite diſcontent, by reviling the character, or depreciating the talents of thoſe who are entruſted with the adminiſtration, *is highly criminal.*" P. 15.

Having noticed alſo ſome other faults to be avoided, he proceeds to call the attention of his hearers or readers, to what he conſiders as the moſt alarming ſymptoms of national degeneracy. Among theſe, he primarily adverts to a lax theology, the parent of a lax morality; and, under the latter, he is particularly ſevere on the morality founded on expedience alone, which has unhappily found an advocate in a divine, of whoſe high merits, in other reſpects, he ſpeaks with due regard and admiration. All that he ſays on this ſubject is highly worthy of notice, and particularly his energetic picture of the inſenſibility of the calculating philoſophers of France, when "the fabric of ſociety tottered to its baſe; the earth ſhook under their feet, the heavens were involved in darkneſs, and a voice more audible than thunder called upon them to deſiſt." P. 45.

But the ſtrong and manly eloquence of the author comes to its height when, towards the concluſion of his diſcourſe, he adverts to the peculiar circumſtances of the preſent conteſt, and the duties ariſing from them; when he paints the crimes of our enemy, and the miſeries

* See vol. xv. p. 263; xxi. 558.

that

that would result from his success. When we cite the following words, with which we shall conclude, we give only a single proof, out of multitudes that lie before us, of the author's powers as a writer, and noble feelings as a patriot.

"We will not suppose there is one who will be deterred from exerting himself in such a cause, by a pusillanimous regard to his safety, when he reflects, that he has already lived too long who has survived the ruin of his country; and that he who can enjoy life after such an event, deserves not to have lived at all. It will suffice us, if our mortal existence, which is at most but a span, be co-extended with that of the nation which gave us birth. We will gladly quit the scene, with all that is noble and august, innocent and holy; and instead of wishing to survive the oppression of weakness, the violation of beauty, and the extinction of every thing on which the heart can repose, welcome the shades which will hide from our view such horrors." P. 70.

ART. 23. *Reformation of Life, Trust in God, and vigorous Exertion recommended. A Sermon, preached in the Chapel of Berwick, on Wednesday, October* 19, 1803, *being the Day appointed by Proclamation for a Public Fast, and on the Sunday following. By Samuel Butler, M.A. Head Master of Shrewsbury School, and late Fellow of St. John's College, Cambridge.* 8vo. 22 pp. 1s. Longman and Rees. 1803.

The Chapel of Berwick (either in, or near to Shrewsbury) is annexed to a charitable foundation, containing sixteen houses for the reception of old persons. There Mr. B. preached on the Thanksgiving, and there we find him again preaching on the Fast. His admonitions, as will naturally be expected from his character, are sound, animated, and patriotic. "It is", says he, "for the guilty, the discontented, the irreligious, the oppressors to tremble"—"but for a great and free people, commending their cause to God, and arming for their altars and their hearths, their property, their wives, and their little ones, to bow beneath the rod of the oppressor—No, MY COUNTRYMEN, THIS NEVER WAS, AND NEVER WILL BE WITNESSED IN THE ANNALS OF MANKIND!"

ART. 24. *A Sermon on the Duties and Obligations of the Military Character, in Application to the present Times, preached before the Tunbridge-Wells Volunteers, October* 2, 1803. *By Martin Benson, A. M.* 8vo. 22 pp. 1s. Rivingtons, &c.

Mr. Benson begins by establishing, from the usual proofs, the lawfulness of the military profession under the Gospel, and next expatiates on the virtues proper to a Christian and more particularly a British Soldier. He then adverts to the national advantages enjoyed by us, as motives for a strenuous defence against invaders, and concludes by recommending union and trust in Providence. This sensible discourse deserved to be more correctly printed.

ART. 25. *The Impolicy and Impiety of Sunday Drills considered.* 12mo. 3d. Ogle. 1804.

Great and unexpected contingencies, require and justify measures which would not be resorted to in an even and uninterrupted course of tranquillity.

tranquillity. The ſame principle which excuſes the drawing an ox or an aſs from a pit on the ſabbath-day, ſeems alſo to excuſe a preparation to ward off thoſe dangers which, for any thing we know, may on the ſabbath attack our very exiſtence. We have, however, always hoped and underſtood, that the Sunday Drill is regularly preceded or followed by an attendance on divine ſervice.

ART. 26. *A Diſcourſe delivered to Volunteers for the Defence of the Nation, and others, at Scampſton, on the Day of the General Faſt, October* 19, 1803. *By Francis Lee, M. A. Chaplain in Ordinary to his Royal Highneſs the Prince of Wales.* 8vo. 1s. 6d. Stockdale. 1804.

With this Diſcourſe, we received the extract of a Letter, in an unknown hand, commending it in the higheſt terms of panegyric. As we invariably give our own judgments, and our own judgments only, ſuch accompaniments are ſuperfluous. Is is certainly a good and ſpirited Diſcourſe; but we cannot ſubſcribe to the opinion of our unknown correſpondent, that it is ſuperior to Chatelain and Biſhop Horne.

ART. 27. *The Royal Soldier. A Sermon, preached at the Pariſh Church of St. Laurence and St. Mary Magdalen, Milk-Street, before the Right Honourable the Lord Mayor, Aldermen, Recorder, and Sheriffs of the City of London. By William Beſt, D. D. Miniſter of the ſaid Pariſhes, and Rector of Keſton, in Kent.* 8vo. 1s. 6d. Williams. 1804.

This is the republication of a Sermon preached before the Lord Mayor and Aldermen during the time of the Rebellion in 1745. The Royal Soldier means William, Duke of Cumberland. This republication is inſcribed to the preſent Duke of York, and is very pertinent to the preſent times and circumſtances.

ART. 28. *Chriſtianity the Friend of Man. By James George Durham, A. B. Corpus Chriſti College, Cambridge.* 12mo. 120 pp. 4s. Hatchard. 1803.

It is truly ſtated in the Preface, that "in this faithleſs age there have not been wanting men of underſtandings and hearts ſo darkened and depraved as to attempt to juſtify the turpitude of their conduct, by exhibiting Chriſtianity as prejudicial to the intereſts of mankind. To demonſtrate the invalidity of this charge is the deſign of the following work. Such a deſign can never fail to have our beſt wiſhes for its ſucceſs. But, how is the deſign executed? This queſtion muſt be anſwered by us, in the preſent and in every other caſe. We ſhall ſpare ourſelves, however, the pain of giving a direct anſwer; by adopting, moſt unreſervedly, the author's own account of his performance: "As to the matter of this imperfect attempt, it contains but a very ſuperficial ſketch of the bleſſings which Chriſtianity has ſhowered upon the ſons of Adam."

ART.

ART. 29. *The awful Judgments of God againſt the wicked and impenitent People of the Two ancient Kingdoms of Iſrael and Judah; exhibited in a plain, practical Faſt-Sermon, as a ſolemn and ſeaſonable Warning to all the People of the United Kingdom of England and Ireland. By Chriſtopher Hodgſon, LL. B. Rector of Marholme, in Northamptonſhire, and late of Pembroke-Hall, Cambridge.* 8vo. 29 pp. 1s. Nicholſon, Cambridge; Rivingtons, London. 1801.

By what accident this diſcourſe has remained ſo long unnoticed by us, we can neither explain nor conjecture. Certainly no demerit in it occaſioned this delay. It is, as the author intended it to be, "a plain practical Faſt-Sermon." That it is alſo "a ſeaſonable and ſolemn Warning," will appear from the peroration; in which, however, the preacher would have done well, if he had conſoled us by remarking, that there exiſt very numerous *exceptions* from the general ſtatement he has there given; and that, as the divine judgments, here ſpoken of, fell upon Iſrael only under diſobedient and wicked kings; *we* may derive hopes of mercy from a difference of our condition in this reſpect.

"It is, indeed, very true, that our nation is a powerful and great nation; but it is alſo a tainted nation: its morals are tainted. Our wide-extended commerce has introduced an abundance of wealth. Wealth has produced luxury and refinement. Theſe have been followed by thoughtleſſneſs and inconſideration in general, by lukewarmneſs and indifference to Religion in particular. On this foundation Infidelity has eaſily erected a ſtrong fortreſs, from which ſhe is now daily endeavouring to batter down with ridicule, what yet remains of the Faith and Purity of the Nation. Infidelity and Licentiouſneſs are the parents of Irreligion, Immorality, and Sedition; and theſe, if not vigorouſly oppoſed by a ſpeedily augmented force of Piety and Virtue, will ultimately effect the deſtruction of the ſtate. Our danger therefore, is evidently great; and the neceſſity of an immediate reform both in Principles and Practices conſequently obvious. Without further delay, then, let us ſoberly contemplate the natural, moral, and political evils that are now upon us, about us, and before us; and be thereby happily admoniſhed for our good before it be to late. Let us bear in mind the conduct of Divine Providence towards the Iſraelites, and that the nations are now ſet againſt ourſelves on every ſide. Let us think—reform—and be ſaved." P. 27.

ART. 30. *Two Sermons, delivered in the Church of Renfrew, on Thurſday, October 20, 1803, being the Day appointed for a General Faſt. To which is added, a particular Addreſs to the People, adapted to the preſent eventful Period. By the Rev. Thomas Burns. Second Edition.* 8vo. 1s. Braſh and Reid, &c. Glaſgow. 1803.

The characteriſtic of theſe Sermons is plainneſs. Yet it is not a rude and vulgar, but a manly and vigorous plainneſs. Specimens will beſt ſhow the *manner* of theſe diſcourſes; and we ſhall produce them, with as little fear as the author ſeems to feel, about the ſmiles or ſneers of levity or profaneneſs. "I know it has been ſaid by ſome, that the lower

lower orders of men have too much education, and it would be better for ſociety if they had leſs. This I deny. The lower claſs, as well as the higher, have too little education. The beſt members of ſociety are the truly religious; thoſe who make a conſcience of reading their Bible, and are governed by the precepts therein contained". P. 9. "It is diſtreſſing to think how the ſabbath is profaned, by thoſe very perſons whoſe intereſt it is to be examples of ſabbath ſanctification. Some there are, who ſet this day apart for adjuſting their books; ſome for ſauntering over their fields, forming plans and alterations on that day, inſtead of going up to the houſe of God. Some are careful to diſplay their vanity, and expoſe their weakneſs on that day, by lolling about in their chariots, or parading on horſe-back, when the devout worſhippers are going up to the houſe of God; chooſing that hour, as if on purpoſe to ridicule the humble votaries of the temple. Parties of pleaſure are formed for that day, as if on purpoſe to proclaim hoſtilities againſt the ſabbath. This is the practice of ſome in the higher walks of life, and it is melancholy to think how many of their inferiors are imitating their example. There are now many, among the lower orders of men, who fix upon the ſabbath as a day for travelling, and ſcruple not to carry bundles upon that day; a practice this, not known in the days of our fathers." P. 12. Here we are ſorry to acquaint the worthy preacher with another practice, *lately* become very common among North-Britons, and their Yorkſhire aſſociates; that of *driving cattle*, on Sundays, to the ſeveral markets in England. We ſtrongly recommend to Engliſh magiſtrates an enforcement of law on this ſubject; and we happen to *know*, that the poor *drivers* will loſe nothing by any reſtraint; for they declare, "they get nothing by working on Sundays." Nor would the poor, in all Chriſtendom, by ſuch a practice, get any thing but *an addition of labour:* and, therefore, may the *improvement* of French *Decades* (among their other improvements) be very far from us!

"When I ſee men, who pretend to ſuperior degrees of ſanctity, and to great familiarity with the Holy Spirit, running up and down the country like firebrands, dividing peaceable pariſhes, and diſturbing the quiet of families that were living in harmony, what am I to think of theſe men? ſpirit, from the ſpirit of our Divine Maſter. Theſe are miſtaken Chriſtians, and I truly pity them; but all thoſe who countenance or encourage them, have much to anſwer for at the great day. Before I conclude this head, I would juſt obſerve, that however much the various ſects differ from one another, they all agree in this, to ſpeak evil of both Church and State. Eſtabliſhed miniſters, eſtabliſhed creeds and confeſſions, and *eſtabliſhed Church* [of Scotland], they cannot away with." P. 15. The following period may perhaps explain to many ſerious churchmen, a matter of which they were before unapprized; "the pious Chriſtian, on the morning of the ſabbath, would no more hear (in caſe of a ſucceſsful invaſion) the *firſt*, the *ſecond*, and the *third bell;* the firſt, putting him in mind of his private devotion; the ſecond, exhorting him to call his family together for prayer; and, the third, calling upon him to go up to the houſe of

the Lord." P. 32. In juſtice to the preacher's pariſhioners, we ſhall make one extract more: "though every pariſh in the kingdom hath ſhown a wonderful alacrity in coming forward on the preſent occaſion, yet none more cheerful than *this* pariſh. More than thirty of its fineſt youths ſtepped forward at an early period, and voluntarily entered into the militia. But beſides theſe, there are two companies in the town, and one of theſe is clothed at its own expence. Let Bonaparte himſelf come with his *invincibles*, he ſhall find in every part of the kingdom, a *forty ſecond* ready to meet him." P. 36.

ART. 31. *An Earneſt Exhortation to a frequent Reception of the Holy Sacrament of the Lord's Supper: particularly addreſſed to Young Perſons. By A. Layman.* 12mo. 23 pp. 3d. Hatchard, London. 1804.

"This letter was written to a young gentleman, who has expreſſed to the author many of the ſcruples here obviated; and by the ſtrong ſolicitation of two or three reſpectable friends, he has been induced to give it a more extenſive circulation." We thank thoſe friends for their interpoſition; finding this to be a very impreſſive and uſeful exhortation. The author has well compreſſed, "in a few pages, what his reading and memory ſupplied from various ſources." A note at p. 10 may be recommended to the attention of the Clergy; though we muſt ſay that we have ſeldom, if ever, (in no ſhort experience) noticed the neceſſity of the introductory wiſh. "I could wiſh that theſe invitations were given by *ſome of our clergy, in a more ſolemn and earneſt manner than at all times prevails;* and that the whole Exhortation were read, as it is in many churches in the North of England. I ſhould think, alſo, it would be attended with a very happy effect (which, indeed, I have known to be produced by it), if notice of the Sacrament were ſometimes given, by reading the *ſecond* Exhortation, addreſſed "to thoſe who are negligent to come to the holy Communion"; the uſe of which, I am afraid, the ſtate of moſt congregations in this country will fully warrant. And if always, after uſing either of theſe exhortations, the kind and affectionate Paſtor would, in the courſe of his ſermon, pathetically and earneſtly entreat his congregation to attend the enſuing Sacrament, to which they have juſt been invited, as they value their ſoul's health; I am confident the happieſt effects would frequently follow."—The tract has certainly the merit of meeting the moſt neceſſary objects of the caſe with clearneſs, propriety, and vigour.

ART. 32. *Correſpondence between the Rev. Dr. Iſaac Watts and the Rev. Martin Tomkins, concerning the Worſhip of the Holy Spirit, &c. &c.* 8vo. 31 pp. 1s. Vidler. 1803.

To publiſh, after a writer's deceaſe, what he never deſigned to be publiſhed, is ſurely, in all caſes, unwarrantable, however common; and, in moſt caſes, injurious to his memory. To do this, after a lapſe of more than threeſcore years, is a great aggravation of the injury. Yet thus is Dr. Watts here treated; nay, his *amanuenſis* is ſtated to have "decyphered his ſhort-hand remarks, and to have put them

them into the hands of the preſent poſſeſſor"*. P. 3. The manifeſt deſign of this tract is, to repreſent Anti-Trinitarians as invincible, and their opponents (particularly Dr. Watts, in the concluding note, p. 31) as weak and contemptible.

ART. 33. *Letters of Conſolation and Advice from a Father to his Daughter on the Death of her Siſter.* 12mo. 3s. 6d. Rivingtons. 1804.

This ſorrowing and pious parent, forcibly directs the attention of a ſympathiſing family, to the only ſolid conſolation which can be found for domeſtic calamities ſimilar to their own. It is religion, and religion only. The phyſician who inflicted the wound alone can heal it. Theſe Letters may be peruſed with effect by all who have been unfortunately expoſed to ſimilar viſitations. They are conceived in the true ſpirit of devotion, without any tincture of fanaticiſm; and are full of ſound good ſenſe, and uſeful admonition.

ART. 34. *A Manual of Inſtruction and Devotion, for the Uſe of the Priſoners in the High Gaol at Exeter. By the Rev. Duke Yonge.* 12mo. Trewman and Son, Exeter. 1804.

This tract, as we are informed, was drawn up at the expreſs ſolicitation of the Magiſtrates of Devonſhire, and was printed at the expence of the county, for the excluſive uſe of the priſoners of the High Gaol, Exeter. The approbation which was teſtified by the Biſhop and their Committee induced the Magiſtrates to promote its more extenſive circulation. This ſeems a very judicious and praiſe-worthy meaſure. We have only to ſay, that it appears, in every reſpect, well adapted to the intended purpoſe.

POLITICS.

ART. 35. *The Parallel between England and Carthage, and between France and Rome, examined. By a Citizen of Dublin.* 8vo. 47 pp. 1s. 6d. Murray. 1803.

The inſolent and injurious compariſon which our Gallic enemies have ſo often made, of France to Rome, and Great Britain to Carthage, is here ſhown to be unfounded, in almoſt every material point. The French, indeed, may well be ſaid to reſemble the Romans, in the vicious parts of their character; in that inordinate ambition, that atrocious cruelty, and that perfidious policy, which the moſt impartial hiſtorians admit to have been a ſtain on their annals; but, in the ſpirit of patriotiſm, in the attachment to civil liberty, in the temperance of their lives, and purity of their morals, which diſtinguiſhed that cele-

* From ſuch amanuenſes, and ſuch poſſeſſors, may all honeſt writers be defended!

brated people, their modern imitators are proved to be lamentably deficient. This the author evinces, by a ſhort hiſtory of the conduct of France towards other nations; and he alſo clearly points out the difference, in many reſpects, between Carthage and Great Britain. The former, he juſtly remarks, "was governed by factions, rather than by a ſettled conſtitution and fixed laws: her ſtate was defended by mercenaries, not by her people. Theſe two cauſes produced the extinction of Carthage, and the fortune of Rome". "But Britain", he adds, "is not like Carthage. We have a conſtitution, and a ſyſtem of laws; a conſtitution, formed by the wiſdom of our anceſtors, maintained by their valour, and confirmed by their virtue. We have laws made by ourſelves, emanating from the general intereſt and the general will. We have an executive power, always exerted for the good of the ſtate, and reſtrained from any impulſion of paſſion or tyranny that might ſubvert that ſtate".

From this ſpecimen the reader will perceive, that the work before us may be conſidered as reſpectable and well intended, though it does not abound in novel remarks, or diſplay any extraordinary ability or vigour.

ART. 36. *An Appeal to the People of the United Kingdoms, againſt the inſatiable Ambition of Bonaparte: preceded by a Vindication of their Character with Reference to the Peace of Amiens.* 8vo. 260 pp. 4s. Mawman. 1803.

"Tediouſneſs," ſays Dr. Johnſon, "is the moſt fatal of all faults"; an obſervation in which, we believe, every reviewer will coincide, and which is ſtrongly exemplified by the writer before us. With the beſt intentions, and ſome degree of ability, he has contrived, by dwelling minutely on every topic, by enforcing arguments already eſtabliſhed, and clearing miſapprehenſions already explained, to render even patriotic ſentiments fatiguing, and infuſe into the approbation that accompanies his reaſonings a mixture of diſguſt—His objects are, firſt, without entirely deciding on the merits of the Treaty of Amiens, or defending thoſe who made it, to juſtify thoſe feelings of the people at large which impelled them to approve it; but chiefly to vindicate the cauſe of this country on the renewal of hoſtilities (ſtill cautiouſly avoiding any determination on the conduct of Miniſters), and to expoſe the unprincipled and inſatiable ambition of our enemy. Theſe objects are purſued, generally ſpeaking, with ſucceſs; though the author's meaning is ſometimes obſcured by the multiplicity of his expreſſions. We think him moſt ſucceſsful in expoſing the treacherous and oppreſſive conduct of Bonaparte towards the people of the Valais and the Swiſs. He alſo reaſons very juſtly on the pretext that the poſſeſſion of Malta was the motive, and is the principal object of the preſent conteſt. If the prolixity of which we complain ſhall not deter others from the peruſal of this work, they will find in it much that patriotiſm muſt applaud, and ſcarcely any ſentiment that a ſound judgment would diſapprove.

ART.

ART. 37. *The Queſtion, Why do we go to War? briefly conſidered.* 8vo. 16 pp. Debrett. 1803.

In this ſhort, but not ill-written tract, the opinions advanced in the pamphlet which appeared with nearly a ſimilar title,* are briefly but ſtrenuouſly oppoſed. The writer before us thinks it "trifling to confine the diſcuſſion to the papers laid before Parliament," and enters into a larger field, taking a view of "the general ſituation of Europe at the period of the rupture." He paints the conduct of France ever ſince the laſt peace, ſhows "the character which diſtinguiſhed her government in its tranſactions with all other States", and infers that the "Queſtion of Peace or War did not turn upon Malta, Egypt, or the Eaſt-Indies", but on the inſolence of the French Government, in ſaying "I will ſeize them becauſe I am the ſtrongeſt." This is the ſubſtance of this author's argument; which he might have argued at greater length without fear of prolixity; a fault which (ſtrange to tell of a political writer!) he has been rather too ſtudious to avoid.

ART. 38. *Some Obſervations on the Propriety of effectually employing our preſent Military Forces againſt France; and a few Curſory Remarks on the threatened Invaſion.* 8vo. 56 pp. 1s. 6d. Hatchard. 1804.

The principal object of this author, is to perſuade the government and country that we ought to endeavour, by ſome powerful effort on the continent, to rally, under our ſtandard, againſt France, all the oppreſſed and inſulted nations of Europe. No fair opportunity of ſuch an exertion ſhould, we agree, be loſt: yet it is extremely doubtful whether, in the preſent ſtate and diſpoſition of Europe, it is not better to wait occaſions than to force them. At all events, thoſe who are at the helm of the ſtate muſt be beſt informed what courſe it is adviſeable to ſteer. The author, however, very properly recommends that "before an expedition to the continent ſhall be determined upon, the end it has in view ſhould be explicitly declared." To this advice moſt judicious perſons will, we imagine, aſſent. We differ only from him in thinking the time is not yet come, when a continental war againſt France is likely to be attended with ſucceſs; and we think the failure of ſuch an attempt as he recommends (beſides the immenſe loſs of blood and treaſure to ourſelves) would tend to rivet the chains of Europe. In almoſt all the author's remarks reſpecting the intended invaſion of this country, we heartily coincide. They are not, however, ſo novel or ſtriking as to require particular notice.

ART. 39. *Two Letters from Satan to Bonaparte. Edited by Henry Whiſfield, M. A. Fellow of King's College, Cambridge.* 8vo. 8 pp. 3d. Highley. 1803.

The intention in publiſhing theſe epiſtles is (we are told) to ſhow "what opinion Satan may entertain of this hero." It is, indeed, pro-

* See Brit. Crit. vol. xxii. p. 564.

bable

bable that the actions of the Firſt Conſul may have rendered him a great favourite with the perſonage here introduced. But the ſubject is too awful for ridicule; and it is not executed with much neatneſs or ability.

ART. 40. *A few plain Thoughts from a Well-wiſher of his Country.* 8vo. 19 pp. Debrett. 1803.

Feeble, abſurd, and inconſiſtent, in the higheſt degree.

PHILOSOPHY.

ART. 41. *Obſervations on the Importance and Neceſſity of introducing improved Machinery into the Woollen Manufactory; more particularly as it reſpects the Intereſts of the Counties of Wilts, Glouceſter, and Somerſet; with general Remarks on the preſent Application to Parliament, by the Manufacturers, for the Repeal of the exiſting Laws. In a Letter addreſſed to the Right Hon. Lord Henry Petty. By John Anſtie, Chairman to the general Wool Meeting in the Year* 1788. 8vo. 99 pp. 2s. 6d. Stockdale. 1803.

The introduction of machinery into the woollen manufacture, and, indeed, into almoſt any other manufacture in the kingdom, has always met with more or leſs oppoſition from the working people, who were naturally led to believe that ſuch inventions, by diminiſhing manual labour, would of courſe deprive them of their employment. Impreſſed with the propriety of this idea, the legiſlature has formerly interfered, and various Acts of Parliament have at different times been paſſed for the regulation of the woollen manufacture. At preſent the Clothiers of the Counties of Wilts, Glouceſter, and Somerſet, have applied to Parliament for a repeal of the obſolete laws reſpecting the woollen manufacture, particularly thoſe which countenance this oppoſition to machinery; and it is the object of the preſent Letter to remove any doubts which may be entertained againſt the propriety of that application, "by pointing out, in a clear and ſatisfactory manner, the real neceſſity of the interference of the legiſlature at the preſent moment, to enable the clothiers to bring forward, without riſk, thoſe improvements in machinery, which exiſting circumſtances imperiouſly demand."

Thoſe circumſtances are ſhown in the ſequel of the work; and the moſt cogent of them is, that, on account of the high price of manual labour, as well as of every other article belonging to the manufacture, or to civil œconomy, beſides the great increaſe of taxes, the clothiers would not be able to ſell their goods at reaſonable prices, unleſs aided by the uſe of machines.

After the ſtatement and the elucidation of the above circumſtances, which are intermixed with a variety of proper remarks, and with the narration of certain important facts, Mr. A. undertakes to ſhow, that the arguments for proving the pernicious tendency of introducing machinery are ill founded. We conceive it indeed to be granted by the

moſt

moſt enlightened reaſoners, that the fact is really contrary to that appearance by which the labourers, and even the legiſlators of former periods were miſled, and that all ſuch abridgments of labour are only of very temporary inconvenience to a few, but of laſting benefit to the community at large; poor as well as rich.

With reſpect to ſtyle, we think ourſelves warranted to ſay, that, without much diſplay of oratory, this author is clear and correct; and he ſeems not to have omitted any remark which may place the ſubject in a proper point of view.

AGRICULTURE.

ART. 42. *The Speech of the Right Hon. Lord Carrington, delivered at the Board of Agriculture, on Tueſday, March* 15, 1803. *Printed by Order of the Board.* 4to. 18 pp. 1s. 1803.

The noble author, in this valedictory harangue, gives "*ſome account*" (as he properly terms it) of the conduct of the Board," during the three years of his preſidency. Having ſtated, in a general way, what they did, or ſhould have done, he proceeds to detail a few of their principal atchievements.

It ſeems that the *ſcarcity* in 1800, would have been (through the "wiſe and prudent foreſight of the Board") greatly mitigated by the importation of rice, and 350,000l. ſaved to the nation, together with an immenſe difference between the price of foreign corn, and the coſt and charges of rice too late imported, if the India Company had not firſt diſcountenanced, and then delayed the importation. This queſtion muſt be ſettled by the Company, and not by reviewers. But we may remark, that had the Company imported largely *on their own account*, and a ſcarcity had afterwards happened in India, a vaſt reſponſibility would have been fixed upon them.

"The next topic" is ſomewhat more within our province. It is (in ſhort) an attempt to vindicate the Board on the ſcore of its Circular Letter to Grand Juries in 1800, founded on the Reſolutions of a like body at York aſſizes, concerning the incloſure and cultivation of waſte-lands; in which Reſolutions, *tithes in kind* were reprobated. "The great legal authorities," in the Houſe of Lords, having ſtrongly condemned this proceeding of the Board, and of the Yorkſhire Jury, we need only ſay, that as the Preſident (by his own confeſſion) "in vain ſtated" to that houſe, ſo he will in vain ſtate any where, "that it had never been the intention of the Board to call in queſtion the general propriety of tithes, as a proviſion for the clergy." P. 7.—As to "a conſpiracy againſt the Church of England," we acquit the Board in general, and particularly its late Preſident; but, that an invaſion of the Church is cheriſhed in the minds of ſome of its members, and even of ſome who are, with reſpect to the Board, *à ſecretis*, we think juſt as indiſputable, as that the Corſico-French Conſul *wiſhes* to invade our United Kingdom; and we truſt, that the wiſhes and attempts of both will be *equally* ſucceſsful.

We

We ſhall diſmiſs this topic, by declaring our hearty concurrence with the opponents of the Preſident's Bill, "that an application to the Grand Juries, on any ſubjects but thoſe for the cognizance of which they are aſſembled, muſt neceſſarily be improper." But, let us add, that we object only to *Grand Juries, as ſuch*, diſcuſſing queſtions not before them. When their duties have ceaſed, and they are diſcharged as jurors, let them, as ſimple country-gentlemen, reſolve what they pleaſe, and publiſh it with their ſimple names. On the propriety of a paſſage in page 11, where Scripture is quoted on a very degrading occaſion, we ſhall venture to decide; by ſaying, that it has our hearty reprobation; though nothing of this kind ſurpriſes us, from the Board of Agriculture.

The two next topics are unexceptionable; namely, 1. The offer by the Board, of Premiums for Eſſays "on the beſt method of converting graſs-lands into tillage; and, after a certain time, of reſtoring them to graſs again, with improvement, or at leaſt without injury." P. 11. Theſe Eſſays will come in due time to be examined by us. 2. The ſending of ſome valuable ſeeds to the Weſt-Indies, from Eaſt-Indian Iſlands, within the ſame climates. Theſe are at preſent on trial.

The Preſident then notices the "domeſtic concerns" of the Board. Concerning their *publications*, he ſays, "the Board expreſsly diſclaimed all reſponſibility as to the particular opinions advanced." P. 12. On queſtions *purely agricultural*, they might do ſo; but, on queſtions of *ſtate* and *general policy*, this diſclaimance cannot be allowed to them. It produced, and encouraged, many diſcuſſions replete with hoſtility towards our civil, as well as eccleſiaſtical, inſtitutions. "Some of them were ſuffered to be printed without *due* examination." It is a kindneſs to the Board to believe that they were never examined at all; except perhaps by the Secretary. This will account, moſt charitably, for the vaſt quantity of miſchief contained in them; which we have, on ſeveral occaſions, not vaguely hinted at, but diſtinctly pointed out.

Inſtead of theſe feeble excuſes, an acknowledgment like the following, would have been manly, and is highly due to the public: "the Board was at firſt, and ſtill is, unfortunate, in employing ſome men, who fancy that agriculture cannot be reformed, without what has been called a *radical reform* both in Church and State; and the Board has been guilty of a criminal negligence, in ſuffering the ſchemes of ſuch men to be publiſhed without its ſtrong diſapprobation."

The *finances* of the Board are in a ſtate conſiderably improved; for which the *preceding* Preſident is handſomely commended. But by whom they were "embarraſſed," we are left to conjecture. The harmony and *cordiality* of the members is then expatiated upon at ſome length; and their indulgence towards the Preſident is civilly acknowledged.

INVASION.

ART. 43. *Loyal Papers. By J. A. Graglia. Containing an Addreſs to the True Britons; an Addreſs to the Fair Sex; an Addreſs to the Lukewarm; a Letter to Bonaparte, by a School-fellow; a circulating Letter of Bonaparte to the remaining Potentates of the North; a Reply to an Abſtract of the Mercure de France, which appeared in the Courier, the 26th of Auguſt laſt.* 8vo. 15 pp. 6d. Ginger, and Aſperne, 1803.

We are right willing to be pleaſed with every effuſion of loyalty at this important juncture; but we muſt require thoſe who would pleaſe us to write intelligibly, and not in language like this: "You, my countrymen, will you ſubmit to offer alſo putrid franchiſe to this new Baal, who inflicts impious adulations upon his abject and vilified flatterers". P. 3. In reſpect of deſign and matter, theſe papers are commendable; but, in point of ſtyle and compoſition, they ſeem to want much correction from an Engliſh pen.

MISCELLANIES.

ART. 44. *Teſtimonies of different Authors, reſpecting the Coloſſal Statue of Ceres, placed in the Veſtibule of the Public Library at Cambridge, July 1, 1803; with a ſhort Account of its Removal from Eleuſis, Nov. 22, 1801.* 8vo. 25 pp. 1s. Payne, 1803.

The antiquarian zeal of thoſe intelligent fellow-travellers, Meſſrs. Clarke and Cripps, has been rewarded by the acquiſition of ſome remarkable treaſures. Among the moſt famous of theſe, are the fine MS. of a large part of Plato's writings, which has been written nearly a thouſand years; and the Coloſſal ſtatue, which is the ſubject of the preſent tract.

It appears to have been ſuggeſted at Cambridge, that this might be the ſtatue of a *Canephora*, or baſket-carrying virgin, and not that of the Goddeſs Ceres, as maintained by the travellers. To confirm the latter opinion, the author of this tract, who is ſuppoſed to be Mr. Clarke, produces the teſtimonies of Wheeler, Spon, and Pococke, to prove the ſituation of this ſtatue in the temple of Ceres, whoſe ſtatue they concluded it to be. He proves, from various authorities, that its decorations are ſimilar to thoſe which were uſually given to Ceres, and not to Canephora. Its coloſſal ſize, and the circumſtance of its being the only ſtatue of the kind in the temple, ſeem indeed ſufficient to prove the fact. Had Canephoræ been introduced for decoration, they muſt have been numerous, as they uſually were in the ſacrifices. We think the arguments of Mr. C. ſufficient, and congratulate the Univerſity of Cambridge on poſſeſſing the remains of a ſtatue which probably was carved by Praxiteles.

The narrative of the difficulties which attended its removal, from the weight of the marble, which amounts nearly to two tons; the obſtacles in the way; the imperfection of the machinery; and the ſuperſtition of the inhabitants, is intereſting and curious,

ART.

ART. 45. *The Polyanthea; or a Collection of intereſting Fragments, in Proſe and Verſe: conſiſting of Original Anecdotes, Biographical Sketches, Dialogues, Letters, Characters, &c. &c. In Two Volumes.* 8vo. 16s. Budd. 1804.

They who are fond of miſcellaneous collections adapted to the purpoſes of lounging, will be pleaſed with this book; in which a great variety of matter is brought together, though not always of much merit or curioſity. Were we to gueſs at the compiler, we ſhould name, as ſoon as any perſon, a gentleman who has ſome verſes in an early part of vol. i. and elſewhere in the collection. Though we cannot ſay that there is much of great novelty or value in the volumes, we ſee nothing to contradict the following aſſertion in the Advertiſement prefixed. "One part of the original deſign is kept in view; the inſertion of ſuch papers as tend to promote virtue and the love of our country". One of the moſt curious papers is Lauder's Letter to Dr. Birch, endeavouring to palliate his impoſitions reſpecting Milton. But this, if we do not greatly miſtake, has been publiſhed before. The account of the late venerable Marquis of Stafford's age and deſcendants (vol. ii. p. 224) is ſomething in the ſtyle of newſpaper intelligence, though it ſeems to be founded on more correct information. The volumes, on the whole, contain amuſement; but that the Fragments can in general be called *intereſting*, as the title-page declares them, is more than we will venture to aſſert.

ART. 46. *A Second Edition. Royalty Theatre. A Solemn Proteſt againſt the Revival of Scenic Exhibition and Interludes, at the Royalty Theatre; containing Remarks on Pizarro, the Stranger, and John Bull; with a Poſtſcript. By the Rev. Thomas Thirlwall, M. A. a Member of the Society for the Suppreſſion of Vice.* 8vo. 14 pp. 6d. Rivingtons, &c. 1803.

This is a very animated and vigorous, as well as "a ſolemn Proteſt". We ſtrongly recommend it to the conſideration of the magiſtrates within the diſtrict alluded to; and to all others, who have any controul over "ſcenic exhibitions", whether they be "Secretaries of State", or maſters of private families. The ſuppreſſion of vice will be moſt effectually promoted, by ſuppreſſing the incentives to it; and that theſe abound upon the ſtage, no one (we think) can deny, who, in the courſe of his life, has ſeen half a dozen *comedies* (as our modern farces in five acts are named) or even ſome of our tragedies moſt frequently exhibited.

ART. 47. *A Brief Compendium of Juvenile Inſtruction; or, a progreſſive Inlet to uſeful Knowledge. Accompanied with an elementary Map. By Mrs. Wilſon.* 8vo. 131 pp. 4s. Rivingtons. 1803.

The author's deſign is, "to contribute a mite towards ſmoothing the paths of learning; and, by inſtilling an early and familiar acquaintance with many of the ſcientific terms and names, to take from practical and uſeful knowledge that terrific idea, which the very

found

ſound of theſe terms too often inſpires in the infant mind". This deſign is executed in a reſpectable manner; and though, perhaps, we had already books enough on the ſame ſubject, yet they who procure Mrs. Wilſon's will not find the purchaſe-money thrown away. A very long liſt of ſubſcribers ſeems to indicate, that the author has retired with credit from her "late concern in the important taſk of education".

ART. 48. *The complete Drill Serjeant: containing the plaineſt Inſtructions for the Drill, Manual, and Platoon Exerciſe, according to the lateſt Regulations. To which are added, ſeveral Poſitions in general Uſe in the Army, though not ſtrictly in the Manual, nor fully treated of in any other recent Publication. Exemplified with Prints, and an Explanation annexed, ſhewing at one View the different Poſitions of a Soldier under Arms, with preciſe Directions for performing each Motion. With an Appendix, containing Inſtructions in different Manœuvres, particularly in Defenſive War. By a late Lieutenant in his Majeſty's Forces. Sixth Edition.* 8vo. 43 pp.

The mode of drilling recruits, together with the manual and platoon exerciſes, are clearly detailed in this ſmall treatiſe, and are alſo illuſtrated by figures. The remainder of the treatiſe is very ſhort, and conſiſts only of a few general but uſeful directions. The beſt teſtimony in favour of the work is the circumſtance of its having reached a ſixth edition.

FOREIGN CATALOGUE.

FRANCE.

ART. 49. *Traduction complette des poéſies de* Catulle, *ſuivie des poéſies de* Gallus *et de la* Veillée des Fêtes de Vénus, *avec des notes grammaticales, critiques, littéraires, hiſtoriques et mythologiques, les parodies des poètes latins modernes, et les meilleures imitations des poètes françois. Par* François Noel, *membre de l'Athénée de Lyon, et auteur du Dictionnaire de la Fable.* Paris, 1803; 2 voll. 8vo.

The object of the labour of Mr. *Noel* is naturally divided into three Parts; the text, the tranſlation, and the commentary. In regard to the text, he has endeavoured to preſent it in as correct a ſtate as was poſſible. In the notes are likewiſe given the principal various readings, and the reaſon of the preference ſhown for thoſe which he has adopted is always aſſigned. The editions which Mr. *N.* has chiefly

chiefly conſulted, are thoſe of the *Aldi*, *Muretus*, *Paſſeret*, *J. Scaliger*, *Voſſius*, the *Variorum* in 8vo. and in folio. The editions of *Corradini*, *Volpi*, thoſe publiſhed by *Barbou*, at Deuxponts, by *Baſkerville*, &c. have equally claimed his attention. Different *ſpicilegia*, miſcellanies, &c. ſuch as thoſe by *Pontanus*, *Heinſius*, *Tanneguy le Febvre*, *Petit*, have likewiſe furniſhed him with a variety of obſervations. One of the moſt judicious commentators, of whoſe remarks Mr. *N.* has availed himſelf, is Mr. *Doering*, whoſe edition deſerves to be more extenſively known.

Mr. *N.* has followed the diviſion generally adopted into lyric, heroic, elegiac, and epigrammatic pieces. He has replaced among the Elegies, two or three pieces which appeared to him to have that character.

With reſpect to the tranſlation, Mr. *N.* has endeavoured to obſerve a due medium between ſervile fidelity, which is real infidelity, and a paraphraſtic interpretation, in which the genius of the original is loſt, with the exception of ſome paſſages, however, where equivalents are not only allowable, but even required by decency. To ſatisfy thoſe who diſapprove of tranſlations in proſe, Mr. *N.* has inſerted in his notes imitations in verſe, by which the reader may be enabled to form a compariſon. *Pezay* had given, in 1772, a verſion in proſe of *Catullus*, which was reprinted in 1794; but he has left a great number of the pieces, more particularly of ſuch as were difficult, untranſlated. The tranſlation by Mr. *N.* has the advantage of being complete. "J'ai taché," ſays he, ſpeaking of the work of his predeceſſor, "j'ai taché d'eviter les écueils qu'il m'a paru n'avoir pas évités, et de faire mieux que lui, en lui empruntant tout ce qu'il a fait de bien."

In his notes, Mr. *N.* appears to have been ſufficiently aware, that what may often ſeem important in the eyes of the commentator, may be very inſignificant in thoſe of the reader; and has, therefore, in general, confined his obſervations to ſuch paſſages as really required them. His travels in the country of the author have furniſhed him with ſome new elucidations. In * one of the works which have appeared on the operations of the laſt war, is found a very intereſting *Notice* on the country-houſe of *Catullus* in the peninſula of Sermione, of which Mr. *N.* has not neglected to avail himſelf in his commentary on the ſmall poem of Catullus *ad Sermionem peninſulam*. In the preliminary diſcourſe placed at the head of the firſt volume, are given the neceſſary details on the life of *Catullus*, where the character of his poems is likewiſe determined, and the editions are pointed out which have appeared before and ſince the publication of that of Deux ponts; as are alſo the tranſlations of the works of this poet into different languages.

Magaz. Encyclop.

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* *Journal hiſtorique des opérations militaires du ſiège de* Peſchiera, *par le C.* F. Henin, *chef d'Eſcadron et chef de l'état-major à ce ſiège.* Paris. 1801.

ART. 50. *Hiſtoire diplomatique du Chevalier Portugais* Martin Behaim *de Nuremberg, avec la deſcription de ſon globe terreſtre. Par M.* Chriſtophe Théophile de Murr. *Traduite de l'allemand par le C.* H. J. Janſen. *Troiſième édition, revue et augmentée par l'auteur. Avec deux planches.* Paris et Straſburg, 8vo.

Of this diplomatic hiſtory of the Chevalier *Behaim*, the firſt edition was publiſhed by M. *de Murr*, in 1778. M. *Janſen* gave a French tranſlation of it, in the firſt volume of his *Recueil de pièces intéreſſantes concernant les Antiquités, les Beaux-Arts, les Belles, et la Philoſophie, traduites de différentes langues*, a very uſeful, though but little known ſelection. He reproduced it as a ſequel to the tranſlation which M. *Ch. Amoretti* publiſhed, of the *premier Voyage autour du Monde, par le Chevalier* Pigafetta, *ſur l'eſcadre de* Magellan, *pendant les années* 1519, 20, 21, *et* 22. (Paris, An. IX. 8vo.) It is to be found in pages 287—384, under the title of *Notice ſur le Chevalier M.* Behaim, *célèbre Navigateur portugais, avec la deſcription de ſon globe terreſtre. Par M.* de Murr. *Traduite de l'allemand par* H. J. Janſen. We have here likewiſe the hemiſphere of the globe of *Martin Behaim*, reduced to one fourth of the ſize of the original.

Mr. *Charles Amoretti*, one of the Librarians and Doctors of the Ambroſian College at Milan, had publiſhed, in 1800, this ſame work in Italian, under the title *Ragguaglio della Navigazione alle Indie orientali per la via d'Occidente, fatto dal Cavaliere* Antonio Pigafetta, *Patrizio Vicentino, ſulla ſquadra del Cap.* Ferdinando Megaglianes, *negli anni* 1519-22, one volume in large 4to. with charts and figures.

Mr. *Amoretti* expreſſed his aſtoniſhment, in his Preface, p. 21, that M. *de Murr* ſhould have denied, that the Chev. *Behaim* had had a ſhare in the diſcovery of America. It was this circumſtance that induced M. *de Murr* to give this third edition, reviſed and corrected, of the diplomatic hiſtory of *Behaim*. Beſides the terreſtrial globe of this navigator, M. *de Murr* has added a plate, engraved a ſhort time after the death of *Behaim*. He has had it copied exactly from the wooden-cut which is in the cabinet of *Praun*.

M. *de Murr* preſents, in the firſt place, a deſcription of the terreſtrial globe of the Chev. *Behaim*; which is followed by hiſtorical notes on the family and life of this navigator, according to the juſtificatory pieces printed at the end of the volume, pp. 111—156. In theſe hiſtorical notes, M. *de M.* gives a liſt of the principal Portugueſe, Spaniſh, Latin, and French writers, who have ſpoken of the period in which *Martin Behaim* lived. He likewiſe adds the enumeration of all the points which *Behaim* marks on his globe as an eye-witneſs.

Ibid.

ART. 51. *Expoſé des températures*, ou *les Influences de l'air ſur les maladies et la conſtitution de l'homme et des animaux, et ſes effets dans la végétation, par* M. Chavanieu d'Audebert, *médecin à Verſailles. Dédié au C.* P. J. G. Cabanis, *médecin, membre du Sénat conſervateur et de l'inſtitut national.*

Three tables, or parts, form the *enſemble* of this intereſting work. In the firſt, the auth or ſpeaks of the ſenſible and general propert s of

of the air, which he conſiders under its four elementary appearances; the humid or moiſt, the cold, the dry, and the hot. Paſſing, then, to the phænomena belonging to organized bodies, he treats of them according to the ſame order; and terminates his firſt view by the expoſition of the atmoſpheric ſtate of the day at its four periods (the evening, night, morning, and noon), and of its influences on organized bodies.

Then follows the ſecond table: Mr. *Ch. d'A.* preſents in it, an account of the phyſical and agricultural ſtate of each month, proceeds to the order of the ſeaſons, gives the ſtate of the heavens, and points out their influences on organized bodies. "Le temps de la peſte", ſays he (after the obſervation of *Proſper Alpinus*) "eſt celui du décroiſſement du Nil, qui arrive en Septembre et finit le plus ſouvent en Juin, époque du débordement." The annual conſtitutions occupy him in the next place: he firſt conſiders the ſucceſſion of the ſeaſons, and the influence which they have upon each other, and then the year itſelf; appealing to the greateſt authorities, whoſe obſervations he often borrows, ſuch as thoſe of *Hippocrates*, *Sydenham*, &c.

The third table, which forms the laſt view, comprehends whatever relates to the action of the lunar points, both on the atmoſphere, and in the criſes of maladies. Proceeding from thence to the nature of different ſituations and climates, he conſiders their expoſure, and the diviſion of countries; making, on this occaſion, this important remark, that towns make for themſelves an artificial climate, very different from that of the open country. The rain-water ſettles there; evaporation is difficult; the cauſes of humidity are frequently renewed: "on a vu", adds he, "pluſieurs fois à Vienne et à Paris les grands froids marquer trois et quatre dégrés de moins dans l'intérieur de la ville que dans les fauxbourgs".

The author concludes his account with ſome explanatory notes, and a general obſervation. In order to form a more adequate idea of the ſubject, and of the views by which he has been directed, it may be ſufficient to cite the paragraph which is at the head of his general obſervation, and is thus conceived. "Repréſenter dans un certain détail et d'une manière comparative l'action de l'air, et des pays ſur les corps organiſés: rechercher ſi des circonſtances ſemblables dans la température ramènent des effets et des epidémies ſemblables, tel eſt le but que je me ſuis propoſé." *Ibid.*

ITALY.

ART. 52. Carolus Mezzera a Monteclara, *philoſophiæ et medicinæ doctor, ampliſſimi medicorum Collegii Candidatus, publice diſputabat in nationali ſubalpino athenæo, anno reip. X. data cuilibet à ſexto argumentandi facultate.* Turin.

The thirty-three firſt pages of this academical compoſition, contain a diſſertation in fifty-three theſes on animal electricity and on Galvaniſm. Though the author, with *Volta* and others, attributes to electric matter the phænomena called Galvanic produced upon animals, he is of opinion, however, that this fluid is ſo modified in the animal body, as

to produce particular phænomena, which ought to be diſtinguiſhed from thoſe hitherto recogniſed in the electric fluid. To this Diſſertation are ſubjoined theſes on objects of phyſic, anatomy, phyſiology, practical medicine, and on the materia medica.

GERMANY.

ART. 53. *Allgemeine Geſchichte der Obſtkultur von den Zeiten der Urwelt an, bis auf die gegenwärtigen herab, Erſter Band. Geſchichte der Obſtkultur von den Zeiten der Urwelt bis zu Konſtantin dem Groſſen; von D.* Fr. Karl Ludw. Sickler, *nebſt einer genetiſchen Obſtkarte und 2 andern Kupfern.—General Hiſtory of the Cultivation of Fruit-trees, from the earlieſt ages to the preſent time, accompanied with a general chart of Fruits, and with two other plates.* Vol. I. *Hiſtory of the Cultivation of Fruit-trees from the earlieſt times down to Conſtantine; by Dr.* Fr. K. L. Sickler. Frankfurt on the Mayn; 1802. 8vo. 507 pp.

The author of this curious and learned work has, for ſome years, conceived the deſign of giving a ſyſtematic deſcription of the fruits known by the ancients, of the nations which had principally cultivated them, of the route by which this culture had reached his own country, and of the men who had moſt diſtinguiſhed themſelves in this reſpect. A moſt extenſive knowledge of antiquity has furniſhed the materials for this undertaking, of which this firſt volume affords an inconteſtible proof.

From his attention to this ſubject, Dr. *S.* has drawn the following general obſervations:

1. The primitive ſpecies of all fruit-trees have been originally found in the countries which ſurround the Caſpian ſea, in Aſia Minor, in Syria, Phœnicia, and Paleſtine. It has been by the Phœnicians and Phocæans, but principally by the Greeks and Romans, that theſe ſpecies have been propagated in the reſt of the cultivated world. No fruit-tree has had its origin in Europe: none, as far as we can learn from hiſtory, has been brought to us either from Africa or America.

2. It has been only to the countries of Aſia, ſituated between the 36th and 53d degree of latitude, that fruit trees have owed their origin. It is only the ſame latitude, and the ſame climate, that have favoured the culture of fruit-trees in Europe.

3. The primitive ſpecies have, in proceſs of time, been continually varying; and, in the time of *Ariſtotle* and *Theophraſtus*, three ſorts of pears only were known; whereas, in the time of *Cato*, ſeven were found, and fifty-ſix in the time of *Pliny* and of *Columella*. The other fruit-trees preſent phænomena reſembling thoſe of the pear-tree. The varieties have been multiplied, either by the cultivation of the ſpecies, or by ingrafting. The different varieties of the ſame ſpecies were combined together, and formed ſubordinate varieties.

One is aſtoniſhed to ſee in the entertaining account which the author gives of the ſeveral modes of cultivation of the earth in different ages, how much all this differs from the preſent practice.

The

The author, while he produces in his work very large extracts from the ancient Claſſics, gives a very ſatisfactory account of the ſpecies and varieties known at every epoch of hiſtory. It is after theſe inveſtigations that he has endeavoured to form at the end of the firſt volume, a chart on which are expreſſed by ſigns previouſly agreed upon, the different routes that fruit-trees have followed in the known world down to the time of Conſtantine. An explanatory table points out the paſſages of the works in which are found the proofs of what the author has advanced. *Ibid. and Jena ALZ.*

ACKNOWLEDGMENTS TO CORRESPONDENTS.

We certainly had never heard of the pamphlet mentioned to us by *Mentor*; but as, by his account, it was founded altogether on the perſuaſion, that Great Britain was completely wrong, and America completely right, in the great conteſt them depending, we cannot wonder that it met with no countenance from perſons who were ſtrongly and conſcientiouſly of the contrary opinion.

LITERARY INTELLIGENCE.

Dr. Henry Stewart, of Edinburgh, has in the preſs a tranſlation of *Salluſt*, with Notes; and two Eſſays, one on the writings of that hiſtorian, and the other on the progreſs of Roman Literature before the age of Auguſtus.

An extended account of the Life of the late *Sir William Jones*, by his intimate friend, *Lord Teignmouth*, is now completed, and ready for publication.

The Rev. *Edward Cooper*, of Hamſtall Ridware, in Staffordſhire, is about to publiſh a ſmall volume of Sermons.

The new edition of *Lord Orford's Royal and Noble Authors*, with notes and additions by *Mr. Park*, is in much forwardneſs.

Sir Richard Muſgrave is ſaid to have made conſiderable progreſs in an important work on the hiſtory of the Roman Catholics in Ireland.

☞ As the mode of admiſſion to the Britiſh Muſeum, which is now rendered as eaſy as poſſible, does not ſeem to be ſufficiently underſtood, we are deſired to mention, that it is fully explained in a printed paper, which is given gratis at the Muſeum.

ERRATUM.

In our laſt, p. 6, l. 8, for *begun*, read *began*; and for *mathematical* problems, read *mechanical*.